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Current Affairs
(Consolidation)

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(Part – I)

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Contents

Polity and Governance 1

- State Election Commission Appointment Issue 1
- Mera Ration Mobile App Launched 2
- Energy Efficiency Enterprise (E3) Certifications Programme 3
- Expansion of Mid-day Meal Scheme 3
- Project Information System & Management: SERB 4
- TRAI Suspends New SMS Scrubbing Norms 5
- India Science Research Fellowship 2021 6
- QS World Subject Rankings 2021 7
- Ease of Living & Municipal Performance Index 2020 8
- Review of Rashtriya Uchchatar Shiksha Abhiyan 9
- NHRC Issues Notice in Hirakud Displacement Case 10
- Appointment of CBI Director 11
- Objections to New IT Rules 12
- Cyber Crime Volunteers 13
- Technical Education Quality Improvement Programme 14
- Karnataka's Engineering Research & Development Policy 14
- Rights of Overseas Citizens of India 15
- Janaushadhi Diwas 17
- Fast-track Courts to Clear Dishonoured Cheque Cases 17
- Group of Ministers: Media Strategy 18
- Vaccine Passports 19
- Wrongful Prosecution in India 20
- Places of Worship (Special Provisions) Act, 1991 21
- Autocratisation Goes Viral Report: V-Dem Institute 22

Economic Scenario 23

- Growth in Bank Credit & Deposits: RBI 23
- National Non-ferrous Metal Scrap Recycling Framework 24
- National Employability Through Apprenticeship Program 25
- Pre-Pack Insolvency Resolution Process 26
- CSIR Floriculture Mission 28
- Amendment Of Insurance Ombudsman Rules, 2017 29
- Purple Revolution Under Aroma Mission 29
- CRCL Recognized as Regional Customs Laboratory 30
- Formation & Promotion of 10,000 FPOs 31
- India Emerged out of Technical Recession 32
- Merchant Digitization Summit 2021 33
- Maritime India Summit 2021 34
- MSME Credit Health Index 35
- EPFO: Interest Rate for 2020-21 36
- PLI Scheme for Telecom Sector 37

- New Umbrella Entity for Payment Systems 37
- Rationalisation of Railway Fares 38
- Sub-Mission on Agroforestry Scheme 39
- India's Biggest Floating Solar Power Plant 41
- Licensing Conditions for Telecom Companies Amended 42

International Relations 44

- Pakistan-Sri Lanka and India 44
- India-Bangladesh Bilateral Meet 45
- ICC Investigations into Israel-Palestine War Crimes 46
- Switzerland's Policy of Neutrality 47
- India-USA Bilateral Trade 49
- Humanitarian Assistance to Drought-Hit Madagascar 50
- India-Sweden Virtual Summit 50
- West Container Terminal Offer to India-Japan: Sri Lanka 52
- Falling Rupee Reserves of Iran 53
- Push for Chabahar Port in INSTC Corridor 54
- Uighur Muslims 55
- Significance of India-Bangladesh Transport Connectivity: World Bank 56
- Bharat Bangla Maitri Bridge 58
- First Leaders' Summit: QUAD 58

Science and Technology 61

- New Technique for Monitoring of Power Transmission Cables 61
- International Cooperation: ISRO 62
- Equine Herpes Virus Outbreak in Europe 63
- National Science Day 2021 63
- National Cyber Security Strategy 2020 64
- Global Bio-India-2021 65
- 53rd PSLV Flight 67
- Swachhta Saarthi Fellowship: Waste to Wealth Mission 68
- Most Distant Quasar P172+18 69
- International Lunar Research Station: Russia and China 70
- France's First Space Military Exercise: AsterX 71
- Genome Mapping in Indian Ocean 72
- Asteroid 2001 FO32 73

Environment and Ecology 75

- Seabuckthorn Plantation in the Cold Desert 75
- Dumping Inert Waste in Asola Bhatti Wildlife Sanctuary 76
- Appeal to Resume Mining in Aravalli Hills 77
- Right to Repair: European Union 78
- Black-Browed Babbler Rediscovered 79
- NDC Synthesis Report: UNFCCC 80
- Similipal Biosphere Reserve: Odisha 81
- WWF Conservation Drive on World Wildlife Day 82
- Whale Shark 83
- Pench Tiger Reserve: Maharashtra 83

- CERA Week Global Energy and Environment Leadership Award 84
- Independent Environment Regulator 85

History 87
- Morarji Desai 87
- Biju Patnaik 88
- Sculpture of Hardit Singh Malik 88
- Dandi March to Mark 75 Years of Independence 89

Art & Culture 92
- Rashtriya Sanskriti Mahotsav 2021 92
- Sahitya Akademi Award 93

Geography 94
- Bhadar Dam: Gujarat 94
- King Bhumibol World Soil Day - 2020 Award 94
- Sangay Volcano: Ecuador 96
- Indonesia's Mt. Sinabung 97

Social Issues 98
- LGBTIQ Freedom Zone in EU 98
- Kala-azar Elimination: Bihar to Miss Deadline 99
- Pradhan Mantri Swasthya Suraksha Nidhi 100
- Parliamentary Standing Committee on Rural Development 101
- State of Water Supply in Schools and Anganwadis 102
- MT Swarna Krishna: International Women's Day 104
- First World Report on Hearing: WHO 105
- Right To Education 106
- Revising National Food Security Act, 2013: NITI Aayog 107
- Freedom in the World 2021 Report 108
- Challenges Faced by Nomadic Tribes 109
- Road to Gender Equality: UNDP 110

Security 113
- Illegal Influx from Myanmar 113
- Air Independent Propulsion for Diesel Electric Submarines 114
- Defence Acquisition Council's Plans 115
- Suryakiran Aerobatic Team 115
- Exercise Desert Flag-VI: UAE 116
- Exercise Dustlik-2 117
- INS Karanj 117

Polity and Governance

Highlights

- *State Election Commission Appointment Issue*
- *Mera Ration Mobile App Launched*
- *Energy Efficiency Enterprise (E3) Certifications Programme*
- *Expansion of Mid-day Meal Scheme*
- *Project Information System & Management: SERB*
- *TRAI Suspends New SMS Scrubbing Norms*
- *India Science Research Fellowship 2021*
- *QS World Subject Rankings 2021*
- *Ease of Living & Municipal Performance Index 2020*
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- *Group of Ministers: Media Strategy*
- *Vaccine Passports*
- *Wrongful Prosecution in India*
- *Places of Worship (Special Provisions) Act, 1991*
- *Autocratisation Goes Viral Report: V-Dem Institute*

State Election Commission Appointment Issue

Why in News

The **Supreme Court** ruled that serving bureaucrats must not be appointed as **election commissioners** to ensure that the independence of the office of the election commissioner is not compromised.

Key Points

- **Supreme Court's Ruling:**
  - Independent persons and not government employees should be appointed Election Commissioners.
    - Giving government employees additional charge as Election Commissioners is a mockery of the Constitution.
  - Directed States to comply with the constitutional scheme of independent and fair functioning of election commissions.
  - If they hold any such office (under the state government), then they have to resign before taking charge of the office of the election commissioner.
  - Ordered all state governments to appoint whole-time election commissioners who will act independently and fairly.
- **About State Election Commissions (SECs):**
  - The State Election Commission has been entrusted with the function of conducting free, fair and impartial elections to the **local bodies in the state.**
  - **Article 243K(1):** It states that the superintendence, direction and control of the preparation of electoral rolls for, and the conduct of, all elections to the **Panchayats (Municipalities under Article 243ZA)** shall be vested in a State Election Commission consisting of a State Election Commissioner to be appointed by the Governor.
  - **Article 243K(2):** It states that the tenure and appointment will be directed as per the law made by the state legislature. However, State Election Commissioner shall not be removed from his/her office except in like manner and on the like grounds as a Judge of a High Court.

Suggestions

- **Second Administrative Reforms Commission Recommendation (2nd ARC):**

Note:

- **Constitution of the State Election Commission:** According to **2nd ARC**, the State Election Commissioner (SEC) should be appointed by the Governor on the recommendation of a collegium, comprising the Chief Minister, the Speaker of the State Legislative Assembly and the Leader of Opposition in the Legislative Assembly.
- An institutional mechanism should be created to bring the Election Commission of India and the SECs on a common platform for coordination, learning from each other's experiences and sharing of resources.

➢ **Law Commission 255th Report on Electoral Reforms:**

- It recommended, to add a new sub-clause to Article 324 of the Constitution to provide for a separate independent and permanent Secretariat for the Election Commission of India (ECI) along the lines of the Lok Sabha/Rajya Sabha Secretariats under Article 98 of the Constitution.
- Similar provisions can also be made for the State Election Commissions to ensure autonomy, and free and fair local body election.

Mera Ration Mobile App Launched

Why in News

In order to facilitate the '**One Nation One Ration Card**' system in the country, the Ministry of Consumer Affairs, Food and Public Distribution has launched the '**Mera Ration**' mobile app to benefit citizens in identifying the nearest **Fair Price Shop** (FPS).

➢ This app will benefit especially those ration card holders who move to new areas for livelihoods.

Key Points

➢ **About the App:** The app is developed by the **National Informatics Center** (NIC).

- **Language:** The application is currently available in English and Hindi.
  - However, it is planned to be introduced in 14 languages which will be identified on the basis of places where most migrant people move.
- **Facilities to the Beneficiaries:**
  - Can identify and locate the nearest fair price shop.
  - Can easily check details of their foodgrain entitlement, recent transactions and the status of **Aadhaar** seeding.
  - Can register their migration details.
  - An option to enter suggestions/feedback.

➢ **One Nation One Ration Card (ONORC):**

- **Implementation:**
  - The ONORC scheme is being implemented by the Department of Food and Public Distribution for the nation-wide portability of ration cards under **National Food Security Act (NFSA) 2013**.
    - The Act legally entitled upto 75% of the rural population and 50% of the urban population to receive subsidized food grains under **Targeted Public Distribution System**.
- **Significance:**
  - This system allows all NFSA beneficiaries, particularly migrant beneficiaries, to claim either full or part foodgrains from any Fair Price Shop (FPS) in the country **through an existing ration card with biometric/Aadhaar authentication** in a seamless manner.
    - The freedom of choosing any FPS was not available earlier.
  - States completing the One Nation-One Ration Card system reform were eligible for **additional borrowing of 0.25% of gross state domestic product (GSDP).**
    - **Seventeen states have operationalised the 'One Nation-One Ration Card' system** with Uttarakhand being the latest to complete the reform.
- **Coverage:**
  - The ONORC was started initially in 4 States in the year 2019 and was rolled out in 32 States/UTs by the end of 2020.
    - The integration of the remaining 4 States/UT (Assam, Chhattisgarh, Delhi and West Bengal) is expected to be completed in next few months.
  - It covers nearly 69 Crore NFSA beneficiaries (about 86% NFSA population) in the country and a monthly average of about 1.5~1.6 Crore portability transactions are being recorded under ONORC.
- **Making ONORC Available to All:**

Note:

- The government supplies 5 kg of subsidised food grains to each person per month through 5.4 lakh ration shops.
- The integration of **Migrants' Portal** with ONROC system is undertaken with the support of the Ministry of Labour & Employment.
- The ONORC has been made a part of **PM SVANidhi** program of the Ministry of Housing & Urban Affairs.
- Media publicity of the ONORC has been done with the help of the Ministry of Information & Broadcasting, Press Information Bureau, **MyGov**, Bureau of Outreach & Communication.

Energy Efficiency Enterprise (E3) Certifications Programme

Why in News

The Ministry of Power has launched **"Energy Efficiency Enterprise (E3) Certifications Programme for the Brick Manufacturing Sector"**.

- The E3 Certification Scheme is aimed at tapping huge energy efficiency potential in this sector.

Key Points

- **About the Energy Efficiency Enterprise (E3) Certifications Programme:**
  - E3 certification is an accreditation process focused on the Brick industry. The certification will be provided by the **Bureau of Energy Efficiency (BEE)**.
    - It is an initiative to recognise burnt clay brick manufacturers who adopt energy-efficient manufacturing and encourage customers to source bricks from such E3 certified manufacturing units.
    - It will be awarded to Brick Manufacturing Enterprises that meet the minimum Specific Energy Consumption (SECVol) performance criteria specified in the Scheme.
    - It is a **shift from conventional** to **efficient technologies and product shift** towards low density bricks with better thermal insulation.
    - The adoption of the **E3 Certification is currently voluntary** for the Brick industry.
- **Advantages of E3 Certification:**
  - The implementation of E3 Certification will lead to multiple benefits:
    - **Energy savings in the brick manufacturing process.**
    - **Improved quality of bricks.**
    - **Cost savings to builders** .
    - **Energy savings to occupiers of buildings** due to better thermal comfort and improved insulation properties.
  - Energy saving of 7 Million Tonnes of oil equivalent (MTOE) per year and CO, savings of about 25 Million Tonnes by 2030 are estimated through adoption of E3 Certification by 7500 Bricks manufacturing units.
  - **Modernization of Sector**: The Scheme seeks to accelerate brick sector modernization, using market incentives to create customer demand to fulfil the vision for **Aatmanirbhar Bharat.**
  - **ECBC Compliance:** Energy efficient bricks will be useful in complying with the requirements of **Energy Conservation Buildings Code (ECBC)**.

Bureau of Energy Efficiency

- **Bureau of Energy Efficiency (BEE)** is a **statutory body** under the Ministry of Power which was setup in 2002 under the provisions of the **Energy Conservation Act, 2001**.
  - It is mandated to implement policy and programmes in the area of energy efficiency and conservation.
- It assists in developing policies and strategies with the primary objective of reducing energy intensity of the Indian economy.
- **Major Programmes**: State Energy Efficiency Index, Perform Achieve and Trade (PAT) scheme, The Standards & Labeling Programme, Energy Conservation Building Code, etc.

Expansion of Mid-day Meal Scheme

Why in News

The **Parliamentary Standing Committee** on Education has **recommended** that **all government schools** start providing **free breakfast in the coming academic year** , as a part of an **expansion of midday meal** scheme envisaged by **National Education Policy.**

Note:

- The **National Education Policy** identifies **"providing food and nutrition"** as one of the key long-term thrust areas for **financing to cultivate a robust education system.**

Key Points

- **Need:**
  - Research shows that the **morning** hours **nutritious breakfast** can be **productive for the study** of cognitively more demanding subjects and hence these hours may be leveraged by providing a simple but energizing breakfast in addition to midday meals.
- **Challenges:**
  - Severe **funding Crunch** is likely to **delay the scheme.**
  - The Centre's **current expenditure** on the Midday meals scheme is about **11000 crore. Free breakfast** would **involve** an additional budget of **4000 crore** but the **School Education Department** saw a **budget cut** of almost **5000 crore** for the year 2020-21 .

Midday Meal Scheme

- **About:**
  - The Midday meal scheme (under the **Ministry of Education)** is a **centrally sponsored scheme** which was launched in 1995.
  - It is the **world's largest school meal programme** aimed to attain the goal of universalization of primary education.
  - Provides **cooked meals** to every child within the age group of **six to fourteen years** studying in **classes I to VIII** who enrolls and attends the school.
- **Objective:**
  - Address hunger and malnutrition, increase enrolment and attendance in school, improve socialisation among castes, provide employment at grassroot level especially to women.
- **Quality Check:**
  - **AGMARK** quality items are procured, **tasting of meals by two or three adult members** of the **school management committee**.
- **Food Security:**
  - If the Mid-Day Meal is not provided in school on any school day due to non-availability of food grains or any other reason, the State Government shall pay **food security allowance** by 15th of the succeeding month.
- **Regulation:**
  - The **State Steering-cum Monitoring Committee (SSMC)** oversees the implementation of the scheme including establishment of a mechanism for maintenance of nutritional standards and quality of meals.
- **Nutritional Standards:**
  - **Cooked meal** having nutritional standards of **450 calories and 12 gm of protein** for **primary (I- V class)** and **700 calories and 20 gm** protein for upper primary **(VI-VIII class)**
- **Coverage:**
  - All **government** and **government aided schools, Madarsa** and **Maqtabs** supported **under the Sarva Shiksha Abhiyan (SSA).**
- **Issues and Challenges:**
  - **Corrupt Practices:** There have been instances of plain chapatis being served with salt, mixing of water in milk, food poisoning etc.
  - **Caste Bias and Discrimination:** Food is central to the caste system, so in many schools, children are made to sit separately according to their caste status.
  - **Covid-19:** Covid-19 has posed serious threats to children and their health and nutritional rights. The nationwide lockdown has disrupted access to essential services, including **Mid-Day Meals.**
  - **Menace of Malnutrition:** According to the **National Family Health Survey-5,** several states across the country have **reversed course** and recorded **worsening levels of child malnutrition.**
    - India is home to about 30% of the world's stunted children and nearly 50% of severely wasted children under the age of five.
  - **Global Nutrition Report-2020:** As per the **Global Nutrition Report 2020,** India is among 88 countries that are likely to miss global nutrition targets by 2025.
  - **Global Hunger Index (GHI) 2020:** India has been ranked at 94 among 107 countries in the **Global Hunger Index (GHI) 2020.** India has a level of hunger that is **"serious".**

Project Information System & Management: SERB

Why in News

The **Science and Engineering Board (SERB)** has set

Note:

up a **portal called PRoject Information System & Management (PRISM)** that offers real time information on the various research projects supported by it.

Key Points

- **About:**
  - It is called '**SERB – PRoject Information System & Management (SERB – PRISM)**'.
  - The **e-platform will provide a whole range of information** regarding all projects sanctioned by SERB from 2011 onwards, including funding details, status, research summary and project output details such as publications and patents.
- **Significance:**
  - The portal is expected to work as a **comprehensive tool** to help forge **stronger scientist-scientist, and science-society connections**.
  - It may be linked with important sectors such as water, energy, and climate and with the new concept of **Scientific Social Responsibility (SSR)**.
  - It helps in the **democratisation of Research & Development funding trends**.
- **Science and Engineering Board (SERB):**
  - It is a **statutory body** under the **Department of Science and Technology**, **Ministry of Science and Technology** established by an Act of the Parliament of India in 2009.
  - It is **chaired by the Secretary to the Government of India** in the Department of Science and Technology and has other senior government officials and eminent scientists as members.
  - It was set up for **promoting basic research in science and engineering** and to provide financial assistance to scientists, academic institutions, Research and Development laboratories, industrial concerns and other agencies for such research.
  - It has a mandate to plan, promote and fund **internationally competitive research in emerging areas**.
  - Some important schemes of SERB:
    - **SERB-POWER Scheme**
    - **Accelerate Vigyan Scheme: SERB**
    - **National Mission on Interdisciplinary Cyber-Physical Systems**

TRAI Suspends New SMS Scrubbing Norms

Why in News

The **Telecom Regulatory Authority of India (TRAI)** temporarily suspended the scrubbing of short message service or SMS by telecom service providers (TSP) for seven days.

- The action by TRAI comes after the functioning of several SMS-based services of banks and e-commerce platforms was affected recently, as the TSPs implemented the second phase of SMS regulation.

Key Points

- **Telecom Commercial Communication Customer Preference Regulation, 2018:**
  - It was issued to "**effectively deal with the nuisance of spam**".
  - Rules mandate telcos to verify the content of every SMS with the registered text before delivering it to consumers.
    - As per TRAI norms, the content of all SMSes will now be verified before it is allowed to be delivered on the users' device. This process, **known as scrubbing**, was implemented recently after several delays.
    - The new TRAI regulations for principal entities, which will be allowed to send SMSes to customers, seek registration of senders, telemarketers, headers, content, templates, consent templates and subscriber preference.
  - The rules **prohibit unregistered senders** from initiating commercial messages, while registered companies are prevented from sending fraudulent messages to their customers.
  - TRAI has released a framework under which telcos could use a distributed ledger technology or blockchain to **verify the sender information and content of every commercial SMS** before it was delivered on the user's device.
    - **Blockchain** will ensure two things i.e, non-repudiation and confidentiality. Only those authorised to access details will be able to access subscriber details and only when they need to deliver service.

Note:

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- According to TRAI, the old technology and platform allowed unscrupulous telemarketers to override the stated preference of the subscriber by claiming consent that may have been surreptitiously obtained.

➢ **Recent Issue:**

❍ Even though TSPs implemented the scrubbing norms, some companies did not adopt them, leading to text messages getting dropped and transaction failures.

- TSPs followed TRAI regulations and activated the due process of content scrubbing to address the issue of **unsolicited commercial communication.**
- TSPs had sent various communications to the principal entities to register their content template with TSPs.

Telecom Regulatory Authority of India

➢ It was **established by an Act of Parliament** (Telecom Regulatory Authority of India Act, 1997) to regulate telecom services, including fixation/revision of tariffs for telecom services.

➢ It provides a fair and transparent policy environment which promotes a level playing field and facilitates fair competition.

➢ The TRAI Act was amended to establish a Telecommunications Dispute Settlement and Appellate Tribunal (TDSAT) to take over the adjudicatory and disputes functions from TRAI.

❍ TDSAT was set up to adjudicate any dispute between a licensor and a licensee, between two or more service providers, between a service provider and a group of consumers, and to hear and dispose of appeals against any direction, decision or order of TRAI.

India Science Research Fellowship 2021

Why in News

Forty scholars from six countries have been recommended for award of **Indian Science Research Fellowship (ISRF) 2021.**

➢ This fellowship is **a platform to establish research cooperation with neighbouring countries** of India, which is **one of the mandates of DST's (Department of Science and Technology) International Science and Technology Cooperation.**

Key Points

➢ **About India Science Research Fellowship (ISRF):**

❍ As part of India's initiatives to **engage with neighbouring countries** to **develop S&T partnerships**, the **Department of Science and Technology (DST) has launched** ISRF Programme.

❍ This fellowship is for scholars from the neighbouring countries - **Afghanistan, Bangladesh, Bhutan, Maldives, Myanmar, Nepal, Sri Lanka,** and **Thailand**.

❍ ISRF programme has provided an opportunity to the young researchers from neighbouring countries to get **access to the state of art facilities** available in the Indian institutes/universities.

❍ ISRF has been implemented **since 2015**.

➢ **Significance of the Fellowship:**

❍ **Science Diplomacy:** Enlarging India's pursuit of influence in global arena/platforms and mainstreaming Science, Technology and Innovation (STI) into international diplomacy and foreign relation.

❍ **Technological Advancement** in the **South Asia region**.

International Science and Technology Cooperation

➢ **About:** The International S&T Cooperation (IC) Division of DST has the mandated responsibility of

❍ negotiating, concluding and implementing **Science, Technology and Innovation (STI) Agreements** between India and other countries, and

❍ providing interventions on STI aspects in international forums.

➢ **Significance:**

❍ In showcasing and projecting India's scientific excellence in the global research landscape,

❍ Leveraging foreign alliances and partnerships to accelerate key priorities and programs devoted to strengthening India's national science and technology (S&T)/ Research and Development (R&D) competencies-capabilities-access to technologies in synergies with national flagship programs.

➢ IC Division is partnering in the following International programs:

Note:

- International Solar Alliance,
- Mission Innovation,
- International AIDS Vaccine Initiative,
- The Laser Interferometer Gravitational-Wave Observatory (LIGO), etc.

QS World Subject Rankings 2021

Why in News

25 programmes offered by higher education institutions in India **ranked among the top 100 in the world** in their respective subject categories, according to the **latest edition (11th) of the QS World University Rankings by Subject.**

Key Points

- **About the QS World Subject Rankings:**
  - **Quacquarelli Symonds (QS)**: It is a leading global career and education network for ambitious professionals looking to further their personal and professional development.
    - QS develops and successfully implements methods of comparative data collection and analysis used to highlight institutions' strengths.
  - **QS World University Rankings**: It is **an annual publication** of university rankings which **comprises the global overall and subject rankings.**
    - **Six parameters and their weightage** for the evaluation:
      - Academic Reputation (40%)
      - Employer Reputation (10%)
      - Faculty/Student Ratio (20%)
      - Citations per faculty (20%)
      - International Faculty Ratio (5%)
      - International Student Ratio (5%)
  - **QS World University Rankings by Subject:** It calculates performance based on **four parameters** — academic reputation, employer reputation, research impact (citations per paper) and the productivity of an institution's research faculty.
- **Top Performers:**
  - Globally **Massachusetts Institute of Technology** (MIT -USA) and **Harvard** (USA) **are among top performers**, **Russia and China record best-ever performances**.
- **India's Performance:**
  - The 2021 QS's global university performance comparison offered independent **data on the performance of 253 programs at 52 Indian higher education institutions, across 51 academic disciplines.**
  - The **number of Indian universities/ institutes in the top 100 subject rankings** has **increased from 8 to 12 this year.**
    - **12 Indian institutions** that have made it to the top 100 of the world - IIT Bombay, IIT Delhi, IIT Madras, IIT Kharagpur, IISC Bangalore, IIT Guwahati, IIM Bangalore, IIM Ahmedabad, JNU, Anna University, University of Delhi and OP Jindal University.
    - **IIT-Bombay has cornered more top 100 positions** than any other Indian institution.
  - **Except one, all the 25 programmes are in institutions run by either the state or union government.** However, **last year, this number stood at 26.**
    - **17 of the 25** globally ranked Indian programmes are in **engineering. IIT-Madras's Petroleum Engineering programme registered the best performance among Indian institutes** - 30th in the world.
  - The **government-run Institutions of Eminence (IoE) remains significantly better-represented in the rankings** than the private ones.
    - **OP Jindal Global University** has entered the global top-100 for law (76th). This is the **only top-100 result achieved by a private IoE.**
    - **IoE:** It is a government's scheme to provide the regulatory architecture for setting up or upgrading of 20 Institutions (10 from public sector and 10 from the private sector) as world-class teaching and research institutions.
  - The **All India Institute of Medical Sciences remained the only institution in the top 300 in the area of life sciences and medicine**, but also dropped more than 10 places.
- **Analysis:**
  - One of the biggest **challenges faced by India is providing high-quality tertiary education** in the face

Note:

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of exploding demand - this much was recognized by last year's **National Education Policy (NEP)**, which set the ambitious target of a 50% gross enrolment ratio by 2035.

- It should therefore be **small cause for concern that the number of Indian programs featuring across 51 subject rankings has actually decreased over the last yea**r – from 235 to 233.
- While this is a minor decrease, it is indicative of the fact that **expanding provision in a way that does not sacrifice quality** remains a highly-challenging task.

- A **number of programs at India's privately-run prospective Institutions of Eminence have made progress** this year, demonstrating the positive role that well-regulated private provision can have in enhancing India's higher education sector.
- **India** remains **at the forefront of global environmental science research.** Data indicates that **India ranks 5th in terms of its research footprint** in this field – behind only Germany, China, the United Kingdom, and the United States.
- **Commonalities between nations** that are improving and nations that are not (**three factors**):
  - First, **an international outlook** – both in terms of faculty body and research relationships– correlates strongly with improved performance.
  - Second, rising universities have received **strong targeted investment from governments** over a decade or more– particularly in China, Russia, and Singapore.
  - Third, **improving relationships with industry** is correlated with better employment, research, and innovation outcomes.

National Institutional Ranking Framework

- The **Ministry of Human Resource Development (now Ministry of Education)** established the **National Institutional Ranking Framework (NIRF) in September 2015.**
- This framework **outlines a methodology to rank institutions across the country** according to parameters covering: Teaching, Learning and Resources; Research and Professional Practice; Graduation Outcomes; Outreach and Inclusivity; and Perception.

Ease of Living & Municipal Performance Index 2020

Why in News

Recently, the Ministry of Housing and Urban Affairs released the **final rankings of Ease of Living Index (EoLI) 2020** and the **Municipal Performance Index (MPI) 2020**.

Key Points

- **Ease of Living Index**
  - **About:**
    - **It is an assessment tool** that evaluates the quality of life and the impact of various initiatives for urban development.
    - It **provides a comprehensive understanding** of participating cities across India based on quality of life, economic-ability of a city, and its sustainability and resilience.
  - **Aim:**
    - It aims to **enable cities to systematically assess themselves** against global and national benchmarks and encourage them to shift towards an **'outcome-based' approach** to urban planning and management.
  - **Parameters:**
    - **Citizen Perception:**
      - The EoLI 2020 strengthens its scope by consolidating the framework with the addition of a **Citizen Perception Survey** in the index, holding a **weightage of 30%.**
        1. **Citizen Perception Survey:**
           a. It was undertaken to help **validate citizens' experience of their city** in terms of service delivery.
           b. **Bhubaneswar had the highest CPS score**, followed by Silvassa, Davangere, Kakinada, Bilaspur and Bhagalpur.
    - **Existing Living Conditions:**
      - It also examines the **outcomes that lead to existing living** conditions.
      - Across **13 categories** such as Education, Health, Housing and Shelter, Buildings, Energy Consumption, and City Resilience, that **account for 70% of the overall outcome.**

Note:

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- **EoLI Performance 2020**
  - **Million+ Category:**
    - **Top Performers:**
      - Bengaluru followed by Pune and Ahmedabad.
    - **Worst Performers:**
      - Amritsar, Guwahati, Bareilly, Dhanbad and Srinagar.
  - **Less than Million Category:**
    - **Top Performers:**
      - Shimla followed by Bhubaneshwar and Silvassa.
    - **Worst Performers:**
      - Aligarh, Rampur, Namchi, Satna and Muzaffarpur.
- **Significance:**
  - **Provide Holistic Assessment:**
    - These indices provide a **holistic assessment of cities** based on their efforts to cultivate better quality of life, create infrastructure, and address challenges of **urbanization**.
  - **Help In Overcoming Deficiencies:**
    - Learnings gathered from these indices can **help the government identify gaps, tap into potential opportunities**, and increase efficiency in local governance to improve the lives of citizens and fulfil broader development outcomes.
  - **Complement SDG Goals:**
    - These indicators are also linked with the majority of **Sustainable Development** Goals (SDGs), specially to the SDG 11 (Sustainable Cities And Communities).
- **Municipal Performance Index:**
  - **About:**
    - It has been launched as an **accompaniment to the Ease of Living Index**.
    - It seeks to **examine local government practices** in **municipalities** across areas of services, finance, policy, technology and governance.
    - It also seeks to **simplify and evaluate** the **complexities in local governance** practice and promote the ethos of transparency and accountability.
  - **Coverage:**
    - The MPI **examined the sectoral performance of 111 municipalities** (with Delhi being assessed separately for NDMC, and the three Municipal Corporations).
  - **Parameters Used:**
    - The five verticals under MPI are **Services, Finance, Policy, Technology and Governance**. These five verticals comprise 20 sectors and 100 indicators in all totality.
  - **Categories:**
    - The assessment framework under MPI 2020 has **classified municipalities based on their population:**
      - **Million+** (municipalities having over a million population) and
      - **Less than a Million** Population.
- **MPI 2020 Performance:**
  - **Million+ category:**
    - **Indore has emerged as the highest ranked** municipality, followed by Surat and Bhopal.
  - **Less than Million category:**
    - **New Delhi Municipal Council topped,** followed by Tirupati and Gandhinagar.

Review of Rashtriya Uchchatar Shiksha Abhiyan

Why in News

The **Union Education Minister** chaired **a review meeting on Rashtriya Uchchatar Shiksha Abhiyan (RUSA).**

Key Points

- **About the Rashtriya Uchchatar Shiksha Abhiyan:**
  - **Aim:** It aims at providing **strategic funding to higher education** institutions throughout the country.
    - The scheme is being operated in mission mode for **funding state universities and colleges** to achieve the aims of **equity, access and excellence**.
  - **Funding**: It is a **centrally sponsored scheme** launched in October 2013.
    - Since 2016-17, the government has spent an average of Rs. 1,500 crore every year on RUSA.
  - **Objectives:**
    - Improve the **overall quality of state institutions** by conforming to the prescribed norms and standards.

Note:

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- **Adoption of accreditation** (certification of competency) as a mandatory quality assurance framework.
- **Promoting autonomy** in state universities and improving governance in institutions.
- Ensure **reforms in the affiliation, academic and examination system.**
- Ensure **adequate availability of quality faculty** in all higher educational institutions and ensure capacity building at all levels of employment.
- Create an **enabling atmosphere for research** in the higher education system.
- **Correct regional imbalances** in access to higher education by setting up institutions in unserved and underserved areas.
- Improve **equity in higher education** by providing adequate opportunities to the disadvantaged.

❍ **Monitoring:** Funding is provided by the central ministry through the State governments and Union Territories (UTs), which in coordination with the Central Project Appraisal Board monitors the academic, administrative and financial advancements taken under the scheme.

➢ **Highlights of the Meeting:**

❍ **Gross Enrolment Ratio (GER)**: Need to draw plans on educating additional 3.5 crore students to increase GER to 50% by 2035.

- **GER:**
  - **India's higher education enrollment** is calculated in terms of GER, which is the ratio of population in the 18-23 age group to the number of people enrolled in higher education.
  - According to **All India Survey on Higher Education (AISHE)**, the GER in higher education has increased from 25.8% in 2017-18 to 26.3% in 2018-19, while in absolute terms the enrolment increased from 3.66 crores to 3.74 crore students.

❍ **Focus on Local Skills**: A total of 7 crore students with employable skills that suit local conditions should pass out from colleges and Universities. Education should lead to local employment. Education in Degree College should be aligned with the "**One district one product (ODOP)**" plan.

❍ **Monitoring**: The **University Grants Commission** will monitor the progress of work done by Institutions which received funding under the RUSA Scheme.

NHRC Issues Notice in Hirakud Displacement Case

Why in News

The **National Human Rights Commission (NHRC)** issued **notices to the Chief Secretaries of Odisha and Chhattisgarh** over the action taken to alleviate the sufferings of people displaced by the construction of the **Hirakud dam over the Mahanadi river** about six decades ago.

➢ About 111 villages were submerged due to the construction of Hirakud Dam and around 22,000 families were affected, while about 19,000 families were displaced.

Key Points

➢ **Hirakud Dam Project:**

❍ **Establishment:**

- It is a multipurpose scheme conceived by **Er. M. Visveswaraya** in 1937, after recurrence of devastating floods in Mahanadi river. Its first hydro power was commissioned in 1956.

❍ **Location:**

- The dam is built across river Mahanadi at about 15 km upstream of Sambalpur town in the state of Odisha.

❍ **Objectives:**

- **Irrigation:** The project provides 1,55,635 hectares of Kharif and 1,08,385 ha of Rabi irrigation in the districts of Sambalpur, Bargarh, Bolangir and Subarnapur.
  - The water released through the power house irrigates further 4,36,000 ha of regions in Mahanadi Delta.
- **Power Generation:** The installed capacity for power generation is 347.5 MW.
- **Flood Control:** The project provides flood protection to Mahanadi basin including 9500 sq. km of delta area in districts of Cuttack and Puri.

➢ **Mahanadi River:**

❍ **About:**

Note:

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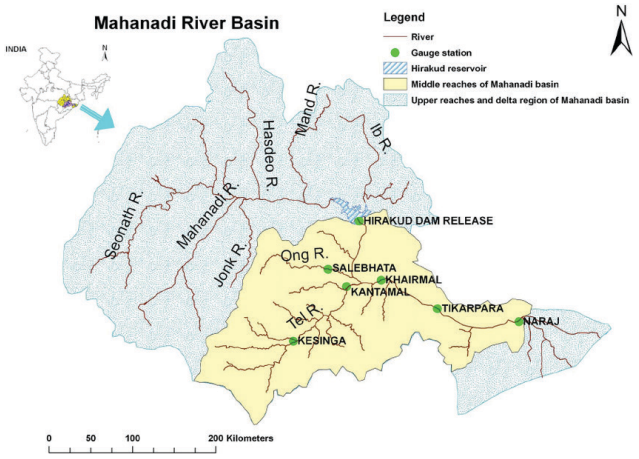

- The Mahanadi River system is the **third largest of peninsular India** after **Godavari and Krishna**, and the largest river of Odisha state.
- The **catchment area** of the river extends to **Chhattisgarh, Madhya Pradesh, Odisha, Jharkhand and Maharashtra.**
- Its basin is bounded by the **Central India hills** on the north, by the **Eastern Ghats on the south and east** and by the **Maikala range on the west.**

❍ **Source:**
- It rises from a place near **Sihawa in Bastar hills in the state of Chhattisgarh** to the south of Amarkantak.

❍ **Major Tributaries of the Mahanadi river**
- Seonath River
- Hasdeo River
- Mand River
- Ib River
- Jonking River
- Tel River

❍ **Mahanadi River Dispute:** The Central Government constituted **Mahanadi Water Disputes Tribunal** in 2018.

Appointment of CBI Director

Why in News

A writ petition has been filed in the **Supreme Court** seeking the appointment of a **regular Central Bureau of Investigation (CBI) Director.**

➢ The Director of the CBI is appointed as per section 4A of the **Delhi Special Police Establishment Act of 1946.**

Key Points

➢ **Director of CBI:**
❍ The CBI is headed by a Director.
❍ The Director of CBI as Inspector General of Police, Delhi Special Police Establishment, is responsible for the administration of the organisation.
- With the enactment of **CVC Act, 2003**, the superintendence of Delhi Special Police Establishment vests with the Central Government to **save investigations of offences under the Prevention of Corruption Act, 1988**, in which, the superintendence vests with the **Central Vigilance Commission**.

❍ The Director of CBI has been provided **security of two-year tenure** in office by the CVC Act, 2003.

➢ **Appointment:**
❍ The **Lokpal and Lokayuktas Act (2013)** amended the **Delhi Special Police Establishment Act (1946)** and made the following changes with respect to appointment of the Director of CBI:
- The Central Government shall appoint the Director of CBI on the recommendation of a **three-member committee** consisting of the **Prime Minister as Chairperson**, the **Leader of Opposition in the Lok Sabha** and the **Chief Justice of India** or **Judge of the Supreme Court** nominated by him.

❍ Later, the **Delhi Special Police Establishment (Amendment) Act, 2014** made a change in the composition of the committee related to the appointment of the Director of C.B.I.
- It states that where there is **no recognized leader of opposition** in the Lok Sabha, then the **leader of the single largest opposition party** in the Lok Sabha would be a member of that committee.

Central Bureau of Investigation (CBI)

➢ The **CBI** was set up in 1963 by a resolution of the **Ministry of Home Affairs**.
❍ Now, the CBI comes under the administrative control of the Department of Personnel and Training (DoPT) of the **Ministry of Personnel, Public Grievances and Pensions.**

➢ The establishment of the CBI was recommended by the **Santhanam Committee on Prevention of Corruption (1962–1964)**.

Note:

- The CBI is **not a statutory body**. It derives its powers from the **Delhi Special Police Establishment Act, 1946.**
- The CBI is the **main investigating agency of the Central Government**.
- It also provides **assistance** to the Central Vigilance Commission and Lokpal.
- It is also the **nodal police agency** in India which coordinates investigation on **behalf of Interpol Member countries**.

Objections to New IT Rules

Why in News

The latest norms for **social media intermediaries** in the **New IT Rules 2021** have drawn objections from privacy experts and lawyers**.**

- The **Supreme Court** (SC) had in 2015 struck down **Section 66A** of the Information Technology Act finding it contrary to both **Articles 19** (free speech) and **Article 21** (right to life) of the Constitution.

Key Points

- **Suspecting Everyone:**
  - Asking 'significant social media intermediaries' to have **automated tools to proactively track certain words** is akin to "**active hunting**", and will "**make suspects out of people".**
    - **For example**: For track words like **interfaith marriage or love jihad**, its like criminalising an entire population **as most of the people must be using these words in their normal discussions**. This way, an entire citizenry is being made a suspect.
- **Against Right to Privacy:**
  - According to the New IT Rules of 2021, significant social media intermediaries providing services primarily in the nature of messaging shall enable identification of the first originator of the information.
    - This provision would **end up weakening overall security, harm privacy and contradict the principles of data minimisation** endorsed in the IT Ministry's **Draft Data Protection Bill 2019**.

Data Minimisation

- Data Minimisation is a principle that states that **data collected and processed should not be held or further used unless this is essential for reasons that were clearly stated in advance** to support data privacy.

    - Identification of the first originator will r**equire end to end encryption to be broken,** thereby compromising the fundamental technology on which most apps are based on.
    - Moreover, owing to the volume of data, encryption has become more important now as more personal data is being aggregated and analysed at a scale that was never possible before.
  - It will **"undermine the principles of open and accessible internet** and the **fundamental right of privacy** enshrined in the Constitution, particularly in the **absence of robust data protection law**.
    - **For Example**:
      - It contains a provision **requiring significant intermediaries to provide the option for users to voluntarily verify their identities**.
      - This would likely entail users **sharing phone numbers or sending photos of government issued IDs to the companies**.
      - This provision will **incentivize the collection of sensitive personal data** that are submitted for this verification, which can then be also used to profile and target users
    - **Right to Privacy**:
      - The **SC** described privacy and its importance in the landmark decision of ***K.S. Puttaswamy v. Union of India in 2017*** as a **fundamental and inalienable right** and attaches to the person covering all information about that person and the choices that he/ she makes.
      - The **right to privacy** is protected as an intrinsic part of the right to life and personal liberty under **Article 21** and as a part of the freedoms guaranteed by Part III of the Constitution.
- **Against Freedom of Expression:**
  - Automated forms of censorship and surveillance could **disproportionately impact users' freedom of speech and expression,** suppressing creativity.
    - **Article 19**(1)(a) of the Indian constitution guarantees the **freedom of speech and expression.**

Note:

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- **Over Censorship:**
  - The new rules provide stricter and wide-ranging obligations on intermediaries for **proactive monitoring of content**.
  - The **fear of legal liability** or action could **lead to over-censorship of content**.
- **Lack of Accountability and Transparency:**
  - The news rules require social media to "deploy technology-based measures, including **automated tools (Artificial Intelligence (AI)) to filter out objectionable content** like child sexual abuse.
  - However, as history has shown, **such tools not only suffer from major accuracy problems but also can lead to function creep**.
    - Earlier in 2020 an AI-powered tool **Genderify** designed to identify a person's gender by analyzing their name, username or email address was shut down just a week after launch after it was blamed to be **biased**.
  - **Coding biases** in the development of **AI** often **lead to discrimination, inaccuracies, and a lack of accountability and transparency.**
- **Gag on Online News Media:**
  - The rules open the way for **increased scrutiny as well as increased costs of compliance and may lead to gagging** of free and unhindered news reporting.

Cyber Crime Volunteers

Why in News

The **Internet Freedom Foundation (IFF)**, a digital liberties organisation, has written to the **Ministry of Home Affairs (MHA)** that the **cyber crime volunteers concept** will lead to a "culture of surveillance and constant suspicion in society creating potential social distrust".

Key Points

- **About the Cyber Crime Volunteers Concept:**
  - **Indian Cyber Crime Coordination Centre (I4C)** has envisaged the Cyber Crime Volunteers Program to bring together citizens with passion to serve the nation on a single platform and contribute in the fight against **cybercrime** in the country.
    - The programme **targets to rope in around 500 persons** to flag unlawful content on the Internet.
  - **Good Samaritans** are welcomed to register as Cyber Crime Volunteers in the role of unlawful content flaggers for facilitating law enforcement agencies in identifying, reporting and removal of illegal / unlawful online content.
  - Volunteers have been advised to study **Article 19** of the Indian Constitution, which deals with freedom of expression.
  - Further, the volunteer shall "maintain strict confidentiality of tasks assigned/carried out by him /her". The **State Nodal Officer of States/UTs** also reserves the **right to take legal action against the Volunteer**, in case of violation of terms and conditions of the Program.
- **Concerns Raised:**
  - **Chances of Misuse**: There is no information available on how the Ministry will ensure that the program is not misused by certain elements to extract misguided personal or political vendettas.
    - There is **no process in place for withdrawal of complaints** once submitted.
  - **Cyber-Vigilantism**: The programme will **essentially result in a similar situation to the one which East Germany was in the 1950s.**
    - The state asking citizens to report their fellow citizens would lead to cyber-vigilantism, and would lead to peers turning against their peers to snitch on them.
  - **No Clear Definition**: The Ministry has failed to clearly define unlawful content and content which would relate to "anti-national" activities.
    - This could **allow the volunteers to exercise far more discretion than is necessary** and report on citizens who are well within their rights to post content which is critical of the State.
    - Such a program seems to be in direct violation of the decision of the Supreme Court in ***Shreya Singhal v Union of India*** (2013) which highlights the need to ensure that overbroad restrictions on online speech are not used as a tool by the State to criminalise free speech on the internet.

Indian Cyber Crime Coordination Centre

- It has been established under the **Ministry of Home affairs (MHA)** to act as a **nodal point at National level** in the fight against cybercrime.

Note:

- The scheme to set up I4C was approved in October 2018, to deal with all types of cybercrimes in a comprehensive and coordinated manner.
- This state-of-the-art Centre is located in **New Delhi**.
- Various States and Union Territories have given their consent to set up Regional Cyber Crime Coordination Centres.

➢ **Objectives:**

- To provide a **platform to deal with cybercrimes** in a coordinated and comprehensive manner.
  - To coordinate all activities related to implementation of **Mutual Legal Assistance Treaties (MLAT)** with other countries related to cybercrimes in consultation with the concerned nodal authority in MHA.
- To **create an ecosystem** that brings together academia, industry, public and government in prevention, detection, investigation and prosecution of cybercrimes.
  - To identify the research problems and take up R&D activities in developing new technologies and forensic tools in collaboration with academia / research institutes within India and abroad.
- To prevent **misuse of cyberspace** for furthering the cause of extremist and terrorist groups.
- **Suggest amendments**, if required, in cyber laws to keep pace with fast changing technologies and International cooperation.

Technical Education Quality Improvement Programme

Why in News

Government is planning to replace the **Technical Education Quality Improvement Programme (TEQIP)** with a new programme **MERITE Project.**

Key Points

➢ **About the Technical Education Quality Improvement Programme:**

- It was started in 2002 by the Ministry of Human Resources and Development with the assistance of the **World Bank** and is being implemented in a phased manner.
- It aims **to upscale the quality of technical education** and enhance capacities of institutions.
- The **Technical Education Quality Improvement Programme III (TEQIP-III) was started in 2017** and will be completed by 2021.
  - It aims **to develop technical education** as a key component for improving the quality of Engineering Education.
  - The Objective is to **improve quality and equity in engineering** institutions in focus states such as in low income states.

➢ **About MERITE Project:**

- The project has an objective to improve technical education like TEQIP.
- However, the MERITE Project is still in the conceptual stage and has not yet received Cabinet approval.

Other Initiative to Improve Technical Education

➢ **Margadarshan and Margadarshak (**AICTE).

➢ **Institutions of Eminence (IoE) scheme.**

➢ Technical Education in Mother Tongue has been proposed by the **National Education Policy (NEP).**

- To achieve the objective that students may pursue the professional courses such as medicine, engineering, law, etc in their mother tongue.
- It suggests teaching in regional language till class 8 and enabling teaching the curriculum in a language which a student is comfortable in.

➢ **Uchhatar Avishkar Yojana (UAY) schemes.**

Karnataka's Engineering Research & Development Policy

Why in News

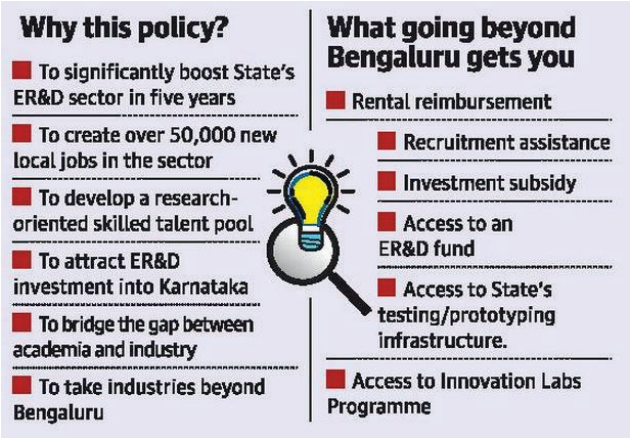
Recently, **Karnataka** launched the **country's maiden Engineering Research & Development (ER&D) Policy.**

Key Points

➢ **About:**

- **Key Sectors:**
  - The new policy identified **five key focus sectors** such as aerospace and defence; auto, auto components and EV; **biotechnology**, **pharma**

Note:


Why this policy?
To significantly boost State's ER&D sector in five years
To create over 50,000 new local jobs in the sector
To develop a research-oriented skilled talent pool
To attract ER&D investment into Karnataka
To bridge the gap between academia and industry
To take industries beyond Bengaluru
What going beyond Bengaluru gets you
Rental reimbursement
Recruitment assistance
Investment subsidy
Access to an ER&D fund
Access to State's testing/prototyping infrastructure.
Access to Innovation Labs Programme

and medical devices; semiconductors, telecom, and software products.

- **Skilling:**
  - The government will **invest in skilling, improve academia and industry collaboration**, and also encourage **intellectual properties (IPs)** creation locally.
- **Subsidies:**
  - It will offer up to **50% reimbursement of rentals up to Rs 2 crore to Multi-National Corporation (MNC)** entities beyond Bengaluru Urban district.
  - It will also offer **recruitment assistance** and up to 20% subsidy up to Rs. 2 crore for investing in the State beyond Bengaluru.
  - These subsidies will be **assessed on case to case basis** based on the investment the companies are making and also employment they generate.
- **Innovation:**
  - To promote innovation, the government will provide **funding to colleges** for projects and will also **fund the cost of developing industry-oriented courses in the colleges and universities**. This is so that talents are in line with the industry demand.

- **Aim:**
  - To prepare the State to make use of the **future opportunities** emanating from this sector.
  - To **grow Karnataka's contribution**, develop more IPs, and make Karnataka a skilled knowledge capital.
  - To **attract MNCs** to establish new ER&D centres in the State or expand their existing facilities through subsidies, market the advantages of the ecosystem to global MNCs and **bridging the gap between engineering talent and opportunity.**
- **Need:**
  - The **ER&D sector in the country** is the fastest growing industry with a **Compound Annual Growth Rate (CAGR) of 12.8%.**
    - **CAGR** is the **rate of return** that would be required for an investment to grow from its beginning balance to its ending balance, assuming the profits were reinvested at the end of each year of the investment's lifespan.
  - The **global engineering research and development industry** is expected to reach a spend of **USD 2 trillion by 2025**.
  - There are about 900 global capability centres for ER&D in India and a **significant share of them in Karnataka.**
  - The State government anticipates the policy has the **potential to create over 50,000 jobs in the ER&D space in five years.**
    - According to industry apex body **Nasscom**, ER&D has the potential to become a **USD 100-billion industry** in the country in the **next five years.**
  - **Linkage between Digital Engineering and Industry 4.0**, which reflects in the form of:
    - **Digitalized manufacturing operations & automation** in processes and supply chains;
    - **Product-as-a-Service Business Model**, allowing customers to pay for a desired result (instead of the equipment driving the result);
    - **Additive Manufacturing,** which can deconstruct the tedious production processes engaged for complex parts and enhance their functional performance.

Rights of Overseas Citizens of India

Why in News

Recently, the government has notified a consolidated list of rights of the **Overseas Citizens of India (OCI)**.

- The rights and restrictions are not new, they have been **notified previously in 2005, 2007,** and **2009**.

Key Points

- **Multiple Entry Lifelong Visa:**
  - OCI cardholders will be entitled to get multiple entry lifelong visas for visiting India for any purpose.

Note:

- **Prior Permission:**
  - OCI cards would need prior permission for a set of activities that include **research, journalism, mountaineering, missionary or Tablighi work**, and **visits to restricted areas**.
- **Parity with Non Resident Indians (NRIs):**
  - OCI cardholders will enjoy parity with **NRIs** in **adoption of children**, **appearing in competitive exams**, **purchase or sale of immovable property** barring agricultural land and farmhouses, and **pursuing professions** such as doctors, lawyers, architects, and chartered accountants.
- **Parity with Indian Nationals:**
  - They have parity with Indian nationals in the matter of domestic air fares, entry fees to monuments and public places.
- **Entrance Exams and Admissions:**
  - OCIs **can appear** for all-India entrance tests such as **National Eligibility cum Entrance Test (NEET)**, Joint Entrance Examination (Mains), Joint Entrance Examination (Advanced) or such other tests **to make them eligible for admission only against any NRI seat or any supernumerary seat.**
  - The OCI cardholder **shall not be eligible for admission against any seat reserved exclusively for Indian citizens.**
- **Other Economic, Financial and Educational fields:**
  - In respect of all other economic, financial and educational fields not specified in the latest notification or the rights and privileges not covered by the notifications made by the **Reserve Bank of India** under the **Foreign Exchange Management Act, 1999**, the **OCI cardholder shall have the same rights and privileges as a foreigner.**
- **Exemption:**
  - They are exempted from registration with the **Foreigners' Regional Registration Officer (FRRO)** for any length of stay in India.
    - Foreigners visiting India who **hold long-term visas (more than 180 days) are required to register their presence** in India with the Foreigners' Regional Registration Office (FRRO).
- **Restrictions:**
  - There will be **no restriction in visiting religious places** and attending normal religious activities like attending religious discourses.

Overseas Citizen of India

- The **Ministry of Home Affairs** defines an OCI as a person who:
  - Was a citizen of India on or after **26th January 1950**; or
  - Was **eligible** to become a citizen of India on **26th January 1950**; or
  - Is a **child or grandchild of such a person**, among other eligibility criteria.
- According to **Section 7A of the OCI card rules,** an applicant is not eligible for the OCI card if he, his parents or grandparents have ever been a citizen of Pakistan or Bangladesh. The category was introduced by the government in 2005.
- The Government of India via **Citizenship (Amendment) Act, 2015** merged the **Person of Indian Origin (PIO) category with OCI category** in 2015.

Non Resident Indian

- A Non-Resident Indian (NRI) means a person resident outside India who is a **citizen of India** or is a person of Indian origin.
  - An Indian citizen residing outside India for a combined total of at least **183 days in a financial year** is considered to be an NRI.
- NRIs **enjoy voting rights** and are required to **pay and file the income tax return** on their Indian income like resident Indians.
  - NRI is more of a technical classification for taxation purposes and investment purposes.
- However, in case an **NRI wishes to take up foreign citizenship, he/she will have to give up Indian citizenship** as the Indian constitution does not allow dual citizenship.
  - A person cannot hold Indian as well as foreign citizenship simultaneously.

Foreigner

- As per the the **Foreigners Act, 1946**, foreigner means a person who is not a citizen of India.
- The Fundamental Rights guaranteed by **Articles 14, 20, 21, 21A, 22, 23, 24, 25, 26, 27 and 28** are **available to all persons whether citizens or foreigners.** The **Fundamental Rights guaranteed by Articles 15, 16, 19, 29, and 30** are **available only to citizens** of India.

Note:

- However, preaching religious ideologies, making speeches in religious places, distribution of audio or visual display/pamphlets pertaining to religious ideologies, spreading conversion etc. **will not be allowed.**

Janaushadhi Diwas

Why in News

The **Bureau of Pharma PSUs of India (BPPI)** celebrated the **3rd Janaushadhi Diwas** (7th March 2021) to spread awareness about quality generic medicines, available at low prices.

- **Theme** of Janaushadhi Diwas was **"Seva Bhi – Rozgar bhi".** The **Janaushadhi week** was celebrated across the country from **1st-7th March 2021.**
- As a part of celebrations, the Prime Minister **inaugurated the 7,500th Janaushadhi Kendra** at NEIGRIHMS, **Shillong**.

Key Points

- **Janaushadhi Kendra:**
  - **Bureau of Pharma PSUs in India (BPPI)** supports **Janaushadhi Kendras** as a part of **Pradhan Mantri Bhartiya Janaushadhi Pariyojana.**
  - These are the **centres from where quality generic medicines** are made available to all.
  - The **number of stores** has grown to more than **7400** and all **734 districts** of the country have Janaushadhi Kendras.
  - **Government grants of up to Rs. 2.5 lakhs** are provided for setting up of Pradhan Mantri Janaushadhi Kendras, which can be set up by doctors, pharmacists, entrepreneurs, **Self Help Groups (SHGs),** NGOs, charitable societies, etc. at any suitable place or outside the hospital premises.
- **Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP):**
  - **PMBJP** is **a campaign launched by the Department of Pharmaceuticals in 2008** under the name Jan Aushadhi Campaign.
    - The campaign was **revamped as PMBJP in 2015-16.**
  - **Bureau of Pharma PSUs of India (BPPI)** is the **implementation agency** for PMBJP.
    - The Bureau of Pharma PSUs of India **works under the Ministry of Chemicals & Fertilizers.**
    - BPPI has also developed the **Janaushadhi Sugam Application**.
  - PMBJP stores have been set up to provide **generic drugs**, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.
  - It also intends to extend the coverage of quality generic medicines so as **to reduce the out of pocket expenditure on medicines** and thereby **redefine the unit cost of treatment per person.**
    - A medicine under PMBJP is **priced on the principle of a maximum of 50% of the average price of top three branded medicines**. Therefore, the price of Janaushadhi Medicines is **cheaper at least by 50% and in some cases, by 90%** of the market price of branded medicines.
- **Performance Analysis:**
  - In the current financial year 2020-21, PMBJP has already achieved sales of Rs. 593.84 crores. This has **led to savings of approximately Rs. 3600 crores of the common citizens** of the country.
  - This scheme is also providing a good source of **self-employment** with **sustainable and regular earnings.**

Fast-track Courts to Clear Dishonoured Cheque Cases

Why in News

A Constitution Bench of the Supreme Court has proposed setting up **fast-track courts** for a limited time to clear **dishonoured cheque cases.**

- Earlier the Supreme Court has suggested forming a committee to resolve the **problem of pendency of cheque bounce cases.**

Key Points

- **Supreme Court Proposal:** Set up fast-track courts under **Section 138 of the Negotiable Instruments Act, 2018**.
  - **Power to establish additional courts:** The government has both power and an obligation

Note:

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under **Article 247 of the Constitution** to set up "additional courts" to better the administration of **laws enacted by Parliament**, including the Negotiable Instruments Act, which deals with cheques.

- **Article 247**: It gives power to Parliament to establish **certain additional courts** for the better administration of laws made by it or of any existing laws with respect to a **matter enumerated in the Union List.**

- **Pendency of Dishonoured Cheque Cases**: The pendency of cheque bounce cases **forms 30% to 40% of the backlog in trial courts** and a sizable chunk of the pile-up in High Courts.

Negotiable Instrument

- These are signed documents that promise a sum of payment to a specified person or the assignee.
- It is **transferable in nature**, allowing the holder to take the funds as cash or use them in a manner appropriate for the transaction or according to their preference.
- Promissory notes, bills of exchange, and cheques are categorised as the negotiable instruments.

Dishonoured Cheque

- A cheque is said to be **honoured**, if the banks give the amount to the payee. While, if the bank refuses to pay the amount to the payee, the cheque is said to be **dishonoured.**
  - In other words, dishonour of cheque is a condition in which the bank refuses to pay the amount of cheque to the payee.
  - The dishonour of cheque is a **criminal offence** and is punishable by imprisonment up to two years or with monetary penalty or with both.
- **Cheque**: It is a **negotiable instrument.** Cheques are not negotiable by any person other than the payee. The cheques have to be deposited into the payee's bank account.
  - The author of the cheque is called 'drawer', the person in whose favour, the cheque is drawn is called 'payee', and the bank who is directed to pay the amount is known as 'drawee'.

Group of Ministers: Media Strategy

Why in News

The **Editors Guild of India** flagged the **Group of Ministers (GoM) report** on the **government's media strategy** as an example of the government's "**increasingly draconian attitude**" towards any criticism.

- The GoM, whose members include five Cabinet Ministers and four Ministers of State, was set up in mid-2020.

Editors Guild of India

- The Editors Guild was founded in 1978 with the **twin objectives** of **protecting press freedom** and for **raising the standards of editorial leadership** of newspapers and magazines.

Key Points

- **Recommendations from Group of Ministers (GoM) Report on Media Strategy:**
  - **Identifying and engaging journalists** - who had lost jobs but have been "supportive or neutral" to the present government - in various ministries so that their services could be used to project the government's image positively.
    - Further, the government should have an **increased engagement with journalism schools** as part of its long-term strategy since present students are future journalists.
  - **Engaging with Foreign Media and NRIs:**
    - There should be r**egular interaction with foreign media journalists** as part of the government's global outreach so that "its perspective" is put out correctly in the international forum.
    - An **effective system of communication with the NRI community** should be established so that they can raise their voice against negative narratives in foreign countries.
  - **Highlighting Government's Work:**
    - It calls for **mass circulation of positive stories** and testimonials to highlight the work done by the government and the difference they have made in people's lives.
      - And **rebuttal of negative stories**, ensuring

Note:

advertisements and outreach programmes in regional languages for better 'connect with local people'.

- Physical copies of the government magazine, **New India Samachar,** should be distributed to 6 lakh people and the e-version to 8 crore people.
- Tasking different ministries with different outreach goals.

❍ **Using Social Media:**

- It calls for **engaging with platforms** such as **Twitter and Google** to increase the government's outreach positively.

❍ **Countering False Narratives:**

- Tracking **50 'negative influencers'** who discredit the government & encouraging **50 'positive influencers'** who project government work in 'right perspective'.

Message and the medium

A peek into the strategy to finetune government communication

Action	Responsible unit
Two major public outreach programmes by each Ministry to ensure year-round coverage of government events	All Ministries
Engagement with journalism schools to tap 'future journalists'	I&B Ministry
Curbing fake news through fact check unit to counter false narratives	Press Information Bureau under I&B Ministry
Identifying a pool of 'spin doctors' for better presentation of facts	I&B Ministry
Promoting and supporting online portals to counter existing critical news portals	I&B Ministry
Regular interaction with foreign media journalists to disseminate government perspective	I&B and External Affairs Ministries

➢ **Concern of Editors Guild:**

❍ The media strategy illustrates the government's **increasingly draconian attitude** against any critique and inquiry by the press.

- The suggestions from the GoM report hint at **increased surveillance and targeting of writers and journalists** who depart from the government's narrative.

❍ The guild said the GoM prepared its report "with an **embedded toolkit to control the narrative** about the government in the media".

❍ Among the more disturbing suggestions was to develop a "strategy to neutralise the people who are writing against the government without facts and set false narratives/spread fake news".

- Suggestion revealed an intention to "**muzzle any criticism of the government**", in the absence of clarity on what constitutes **fake news.**

Vaccine Passports

Why in News

Governments around the world are exploring the potential use of vaccine passports as a way of reopening the economy by identifying those protected against the coronavirus.

Key Points

➢ **About Vaccine Passports:**

❍ A vaccine passport is an e-certificate that stores and records jabs and **Covid-19** test status.

- It can be kept in a smartphone app or in other digital formats.
- Its contents can be flashed at security checkpoints when people travel across borders.

❍ The idea is modelled on the proof of **vaccination** that several countries required even before the pandemic.

- Travellers from many African countries to the USA or India are required to submit proof that they have been vaccinated against diseases such as **yellow fever**.

❍ In February 2021, **Israel became the first country** to introduce a certification system that allows those who have been vaccinated against Covid-19 to access certain facilities and events.

➢ **Function of Vaccine Passports:**

❍ Will **digitise vaccination records** across countries.

❍ Supposed to **function as proof** that the holder has been vaccinated against Covid-19 and is, therefore, safe.

➢ **Potential Beneficiary of the Vaccine Passports:**

❍ The primary benefit will be to the **tourism and the hospitality industries**, which are both seen as being at the heart of Covid-19 spread and are the worst hit by the pandemic.

Note:

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- The **international air travel,** which suffered massively because of the outbreak.

➢ **Similar Initiative**: Several associations and non-profits have been issuing their own versions for international travel:

- **IATA Travel Pass**: The global trade body representing airlines (**The International Air Transport Association**) is developing an app called IATA Travel Pass that will provide airlines and other aviation industry stakeholders with a common platform to check for the proof of vaccination and its validity.
- **CommonPass**: Non-profit Commons Project has been trying out an app called CommonPass, which contains a passenger's vaccination record.

➢ **Concerns Raised in Instituting Vaccine Passport:**

- **WHO's Stand:**
  - The **World Health Organisation (WHO)** is **against the introduction of Covid-19 vaccination proofs** as a requirement for international travel.
  - There are still critical **unknown facts regarding the efficacy of vaccination** in reducing transmission.
- **Lack of Uniformity**: The major difficulty in implementation will be the lack of uniformity across jurisdictions in requirement and issuance of proofs of vaccination.
- **Inadequate Availability of Vaccines**: Preferential vaccination of travellers could result in inadequate supplies of vaccines for priority populations considered at high risk of severe Covid-19 disease.
  - Introducing a requirement of vaccination as a condition for travel has the potential to **hinder equitable global access to a limited vaccine supply** and would be unlikely to maximize the benefits of vaccination for individual societies and overall global health.
- **Perpetuate Discrimination and Inequality**: Experts argue that vaccine passports, in any form, might make travel inequitable. Adoption of these digital passports can perpetuate discrimination and inequality, increasing the divide between socioeconomic groups.
  - Rich countries that have already bought millions of doses from pharmaceutical companies are ahead in the race. The poorer nations may have to wait for months, if not years, to start inoculations.
  - This means that if vaccine passports become a norm, then these **lower-income nations will lose out on the advantage.**
  - It will lead to exclusion of the younger generation who would be last in line to be vaccinated.
- **Privacy Concerns**: These are mainly digital certificates that are accessed by a particular service provider to check for proof of vaccination, there is a possibility that they would be used by authorities to **track the movement of their holders**.

Wrongful Prosecution in India

Why in News

A petition has been filed in the Supreme Court highlighting the **need for the government to frame guidelines for compensating victims of wrongful prosecution** by the police or authorities.

➢ The petition said the government had not bothered to implement the recommendations made by **the Law Commission of India in its 277th report on the miscarriage of justice in 2018.**

Wrongful Prosecution

➢ It refers to the cases where the accused was not guilty of the offence, and the police and/or prosecution engaged in some form of misconduct in investigating and/or prosecuting the person.

➢ **The International Covenant on Civil and Political Rights (ICCPR)**, which is ratified by India creates an obligation on the State parties to enact a law to compensate the victims of such miscarriage of justice.

Key Points

➢ **Wrongful Prosecution in India:**

- India has no effective statutory/legal Mechanism for the wrongful prosecutions due to police and prosecutorial misconduct which has resulted in **a pandemic of false cases**.
  - Due to no fear of being prosecuted by courts and growing tendency to frame innocents for ulterior motives, there has been an unprecedented surge in filing of false cases.
- The petition said **innocents fell victim to the malice of the authorities** who used the **criminal justice system** to settle scores.

Note:

- It has not only **destroyed the social fabric** of the nation but also affected the **over-burdened judiciary** with alarming pendency of **over 40 million cases.**

➢ **Judicial Pronouncement About Wrongful Prosecution:**

- Earlier in May, 2017 the **Delhi High Court** in the case of ***Babloo Chauhan vs. State Govt. of NCT of Delhi***, expressed grave concern about the state of innocent persons being wrongfully prosecuted.
- It also asked the Law Commission to undertake a comprehensive examination of the issue and make a recommendation to the Government of India.

➢ **Recommendations of the Law Commission of India - 277th Report:**

- Recommended **amendments to the Code of Criminal Procedure, 1973 (CrPC)**, to give compensation in cases of miscarriage of justice resulting in wrongful prosecution of persons.
  - Miscarriage of justice refers to wrongful or malicious prosecution, regardless of whether it leads to conviction or detention.
- Designation of **special courts in each district** for adjudicating upon the claims of compensation for wrongful prosecution.
- The **claim for compensation** can be brought by the accused person so injured; or by any agent duly authorized by the said accused person; or where the accused person died after the termination of the wrongful prosecution, by all or any of the heirs or legal representatives of the deceased.
- **Guiding principles** to be followed by the Court while determining the amount of compensation. These include **seriousness of the offence, severity of punishment, length of detention, damage to health, harm to reputation, and loss of opportunities.**
- Compensation under this framework will include **both pecuniary** (monetary) **and non-pecuniary assistance** (form of services such as counselling, mental health services, vocational/employment skills development, and such other similar services).

Places of Worship (Special Provisions) Act, 1991

Why in News

The Supreme Court asked the Centre to respond to a plea challenging the **Places of Worship (Special Provisions) Act, 1991** which **freezes the status of places of worship** as **it was on 15th August, 1947.**

➢ In agreeing to examine the law, the court has opened the doors for litigation in various places of worship across the country including Mathura and Varanasi.

Key Points

➢ **About the Places of Worship (Special Provisions) Act, 1991:**

- It seeks to **maintain the "religious character" of places of worship** as it was in 1947 except in the case of **Ram Janmabhoomi-Babri Masjid dispute**, which was already in court.

➢ **Purpose:**

- Section 3 of the Act **bans the conversion of a place of worship** or even a section of it into a place of worship of a different religious denomination or of a different segment of the same religious denomination.
- Section 4(2) says that **all suits, appeals or other proceedings** regarding converting the character of a place of worship (that were pending on 15th August, 1947) will **come to end when the Act commences** and no fresh proceedings can be filed.
  - However, legal proceedings can be initiated if the change of status took place after the cut-off date of 15th August, 1947 (after enactment of the Act).
- The Act also **imposes a positive obligation on the State to maintain the religious character** of every place of worship as it existed at the time of Independence.
  - This legislative obligation on the State to preserve and protect the equality of all faiths is an essential secular feature and one of the basic features of the Indian Constitution.

➢ **Exemption:**

- The disputed site at **Ayodhya was exempted** from the Act. Due to this exemption, the trial in the Ayodhya case proceeded even after the enforcement of this law.
- Besides the Ayodhya dispute, the Act also exempted:
  - Any place of worship which is an **ancient and historical monument or an archaeological site** covered by the **Ancient Monuments and Archaeological Sites and Remains Act, 1958**.

Note:

- A suit that has been finally settled or disposed of.
- Any dispute that has been settled by the parties or conversion of any place that took place by acquiescence before the Act commenced.

➢ **Penalty:**
  - Section 6 of the Act prescribes a punishment of **maximum three-years imprisonment** along with a fine for contravening the provisions of the Act.

➢ **Supreme Court's View (in 2019):**
  - In the **2019 Ayodhya verdict**, the Constitution Bench referred to the law and said it **manifests the secular values of the Constitution** and strictly prohibits retrogression.

➢ **Petition Arguments:**
  - It has been challenged on the ground that the Act **violates secularism**.
    - It has been argued that the cut-off date of 15th August, 1947 is "**arbitrary, irrational and retrospective**" and **prohibits Hindus, Jains, Buddhists, and Sikhs** from approaching courts to "reclaim" their places of worship which were "invaded" and "encroached" upon by "fundamentalist barbaric invaders".
  - It is argued that the Centre has no power to legislate on "**pilgrimages" or "burial grounds**" which is under the **state list.**
    - However, the government had said it could make use of **its residuary power** under **Entry 97 of the Union List** to enact this law.
    - **Entry 97** confers residuary powers to the Centre to legislate on subjects that are **not enumerated in any of the three lists**.

Autocratisation Goes Viral Report: V-Dem Institute

Why in News

Recently, India has been classified as an **"electoral autocracy"** in the annual report named **Autocratisation Goes Viral** of Sweden-based Varieties of Democracy (V-Dem) Institute.

➢ This report comes just after the US watchdog **Freedom House downgraded India's status to "partly free"** in its '**Freedom in the World 2021'** report.

TABLE 1: TOP-10 AUTOCRATIZING COUNTRIES, 2010–2020

		CHANGE	LDI 2010	LDI 2020	REGIME TYPE 2010	REGIME TYPE 2020
1	Poland	−0.34	0.83	0.49	Liberal Democracy	Electoral Democracy
2	Hungary	−0.32	0.68	0.37	Electoral Democracy	Electoral Autocracy
3	Turkey	−0.29	0.40	0.11	Electoral Democracy	Electoral Autocracy
4	Brazil	−0.28	0.79	0.51	Electoral Democracy	Electoral Democracy
5	Serbia	−0.27	0.51	0.24	Electoral Democracy	Electoral Autocracy
6	Benin	−0.26	0.55	0.29	Electoral Democracy	Electoral Autocracy
7	India	−0.23	0.57	0.34	Electoral Democracy	Electoral Autocracy
8	Mauritius	−0.23	0.73	0.50	Liberal Democracy	Electoral Democracy
9	Bolivia	−0.18	0.41	0.231	Electoral Democracy	Electoral Autocracy
10	Thailand	−0.17	0.34	0.17	Electoral Autocracy	Closed Autocracy

Key Points

➢ **About V-Dem:**
  - The V-Dem Institute, an **independent research organisation** founded in 2014 by Swedish political scientist Staffan Lindberg.
  - It produces its **annual report on the state of democracy** around the world based on a dataset of almost 30 million data points for **202 countries**.

➢ **Global Scenario:**
  - The global **decline of liberal democracies** was 'steep' in the past 10 years in the Asia-Pacific region, Central Asia, Eastern Europe and Latin America.
  - Apart from India, countries like **Brazil and Turkey figured among the top 10 countries that slipped in rankings** that were part of the **G-20** nations.

➢ **India's Position:**
  - India was previously classified as an **electoral democracy,** however the latest report classified it as **electoral autocracy.**
  - India is now as autocratic **as is Pakistan**, and **worse than** both its neighbours **Bangladesh and Nepal**.
  - **Political rights** and **civil liberties** in the country have **deteriorated since 2014,** with increased pressure on human rights organizations, rising intimidation of academics and journalists, and a spate of bigoted attacks, including lynchings, aimed at Muslims.

➢ **Reasons for the Downgrade:**
  - Recently, Indian government has used laws on **sedition (Section 124A)**, **defamation (Section 499)**, and **counter-terrorism** to silence critics.
  - It has used the **Foreign Contributions Regulation Act (FCRA) 2010** to restrict the entry, exit and functioning of civil society organisations.
  - More frequent use of laws like **Unlawful Activities (Prevention) Act (UAPA), 1967**.

■■■

Note:

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Economic Scenario

Highlights

- *Growth in Bank Credit & Deposits: RBI*
- *National Non-ferrous Metal Scrap Recycling Framework*
- *National Employability Through Apprenticeship Program*
- *Pre-Pack Insolvency Resolution Process*
- *CSIR Floriculture Mission*
- *Amendment Of Insurance Ombudsman Rules, 2017*
- *Purple Revolution Under Aroma Mission*
- *CRCL Recognized as Regional Customs Laboratory*
- *Formation & Promotion of 10,000 FPOs*
- *India Emerged out of Technical Recession*
- *Merchant Digitization Summit 2021*
- *Maritime India Summit 2021*
- *MSME Credit Health Index*
- *EPFO: Interest Rate for 2020-21*
- *PLI Scheme for Telecom Sector*
- *New Umbrella Entity for Payment Systems*
- *Rationalisation of Railway Fares*
- *Sub-Mission on Agroforestry Scheme*
- *India's Biggest Floating Solar Power Plant*
- *Licensing Conditions for Telecom Companies Amended*

Growth in Bank Credit & Deposits: RBI

Why in News

Recent data released by the Reserve Bank of India (RBI) showed that Bank credit and deposits grew and were higher in February 2021 than January 2021.

- The credit and deposits for February 2021 were even higher than the pre-pandemic data of February 2020.

Key Points

- **Bank Related Data by RBI:**
  - **At the end of February 2021:**
    - Bank credit grew by 6.63% to Rs.107.75 lakh crore which in February 2020 stood at Rs.101.05 lakh crore.
    - Bank deposits grew by 12.06% to Rs.149.34 lakh crore which in February 2020 stood at Rs.133.26 lakh crore.
- **Reason for Credit Growth:**
  - The growth in bank credit is driven by an increase in retail loans.
    - Retail loans include a vast range of different loans. Personal loans such as car loans, mortgages, signature loans and credit cards all fall into the category of retail loans, but business loans can also fall into the category of retail loans.
  - The overall retail credit growth, which is currently at 9% is expected to accelerate further, led by mortgages (contributing 51%of retail loans) and back-end support by unsecured (cards/personal loans) and vehicle loans.
- **Bank Credit:**
  - Banks and financial institutions make money from the funds they lend out to their clients.
    - These funds come from the money clients deposit in their accounts or invest in certain investment vehicles such as certificates of deposit (CDs).
      - A CD is a product offered by banks and credit unions that provides an interest rate premium in exchange for the customer agreeing to leave a lump-sum deposit untouched for a predetermined period of time.
  - Bank credit consists of the total amount of combined funds that financial institutions advance to individuals or businesses. It is an agreement between banks and borrowers where banks make loans to borrowers.
- **Bank Credit In India:**
  - The Bank credit in India refers to credit lending by various scheduled commercial banks (SCBs) to various sectors of the economy.
  - The bank credit is categorized into food credit and non-food credit.

Note:

- The food credit indicates the lending made by banks to the Food Corporation of India (FCI) mainly for procuring foodgrains. It is a small share of the total bank credit.
- The major portion of the bank credit is the non-food credit which comprises credit to various sectors of the economy (Agriculture, Industry, and Services) and also in the form of personal loans.
- The data on bank credit is collected on a monthly basis by the RBI.

➢ **Bank Deposits:**

❍ Bank deposits consist of money placed into banking institutions for safekeeping. These deposits are made to deposit accounts such as savings accounts, current accounts, and money market accounts.

- The account holder has the right to withdraw deposited funds, as set forth in the terms and conditions governing the account agreement.

➢ **Bank Deposits in India:** In India there are four major types of Bank Deposits

❍ **Current Account:**

- A current account is a special type of account that has lower restrictions than a savings account when it comes to withdrawals and transactions.
- It is also known as a demand deposit account and it is meant for businessmen to conduct their business transactions smoothly.
- Banks also offer overdraft facilities on these, i.e., they let account-holders withdraw more money than there is in the account.

❍ **Savings Accounts:**

- It offers high liquidity and is very popular among the masses. It does, however, have cash withdrawal and transaction limits to promote digital payments.
- Banks provide an interest rate which is only slightly higher than inflation, so it is not very optimal for investment.

❍ **Recurring Deposits:**

- It is a special type of term deposit where you do not need to deposit a lump sum savings rather a person has to deposit a fixed sum of money every month.
- There are no premature withdrawals allowed in the account, but for a penalty, you can close the account before the maturity date of the deposit.

❍ **Fixed Deposits:**

- It is an investment avenue offered by banks, financial institutes and Non-Banking Financial Companies (NBFCs) that offers guaranteed returns.
- It gives a higher interest than a regular savings account and offers a wide range of tenures ranging from 7 days to 10 years.

National Non-ferrous Metal Scrap Recycling Framework

Why in News

The Ministry of Mines has issued a National non-ferrous metal scrap recycling framework, 2020 in a bid to cut down the scrap imports.

➢ It also seeks to use a life cycle management approach for better efficiency in the mineral value chain process.

Key Points

➢ **Objectives of the Recycling Framework:**

❍ To work towards economic wealth creation, job creation and increased contribution to GDP through metal recycling.

❍ To promote a formal and well organized recycling ecosystem by adopting energy efficient processes.

❍ To minimize the effect of end of life products on landfills and environmental pollution by promoting an environmentally sound recycling system.

❍ To evolve a responsive ecosystem by involving all stakeholders.

➢ **Implementation Guidelines:**

❍ The framework envisages setting up of a central Metal Recycling Authority to facilitate recycling of metals.

❍ The government will work towards establishing standards for Quality of scrap used for recycling.

❍ A mechanism for registration of segregators, dismantlers, recyclers, collection centers etc. will be developed to promote recycling to an organized sector

❍ It is proposed to set up Urban Mines, envisaged as a location to collect and hold large quantities of similar materials.

Note:

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- An Online market platform/ exchange platform for recycled/secondary metal will be developed.
  - Recyclers may explore the possibility of entering into collection contracts with industrial and commercial establishments.

➢ **Roles/ Responsibilities of Stakeholders:**

- **Responsibility of Manufacturer:** To ensure that any Extended Producer Responsibility (EPR) guidelines/ Regulations be strictly adhered to.
  - Designing products that are easier to recycle and reuse in an efficient and environmentally sound manner.
- **Role of Public:** Public should responsibly dispose of scrap at designated scrap collection centers for their effective and environmentally sound processing.
- **Role of Government:** MoEF&CC to streamline the regulatory requirements, eliminating multiple clearances wherever feasible, for the recycling units.
- **Role of Recycling Authority:** Developing technical, safety and environmental norms and SOPs for handling and processing of scraps in consultation with MoEFCC, CPCB, BIS, etc.

➢ **Challenges Faced By the Non-ferrous Metals Recycle Industry:**

- A major challenge is its heavy dependence on import of metal scrap.
- Lack of an organized / systematic scrap recovery mechanism.
- Lack of sustained implementation of existing regulations on waste collection and recycling.
- Lack of standardization of recycled products adversely affecting market adoption.
- Lack of specific skill sets on responsible methods and technologies.

➢ **Government Initiatives For Recycling:**

- The Ministry of Environment, Forest and Climate Change (MoEF&CC) is in the process of formulating National Resource Efficiency Policy (NREP) which aims to mainstream resource efficiency across all sectors, wherein Aluminium sector has been considered as a priority sector.
- The Ministry of Steel has brought out a Steel Scrap Recycling Policy which envisages a framework to facilitate and promote establishment of metal scrap recycling centers.
- NITI Aayog is proposing a comprehensive "National Material Recycling Policy" to drive concerned and coordinated national and state level programs, plans and actions towards ramping up material recycling in India in a formal and organized manner.

Non-Ferrous Metal

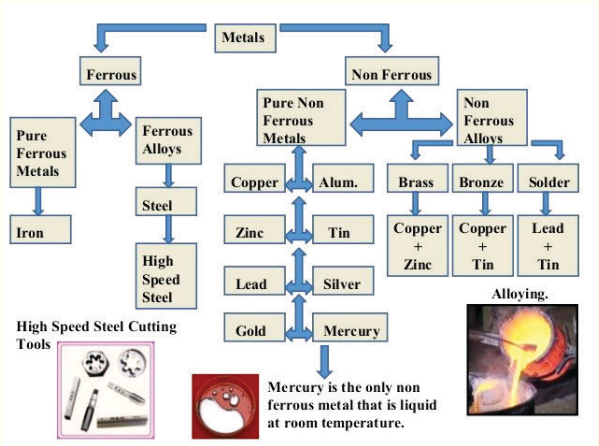
➢ The Non-ferrous metals can be classified in **broad categories** as

- **Base metals** (e.g. aluminium, copper, zinc, lead, nickel, tin)
- **Precious metals** (e.g. silver, gold, palladium, other platinum group metals)
- **Minor metals** including refractory metals (e.g. tungsten, molybdenum, tantalum, niobium, chromium) and
- **Specialty metals** (e.g. cobalt, germanium, indium, tellurium, antimony, and gallium).

➢ Aluminium is the second most used metal in the world after Iron.

➢ Copper is the third most important base metal by value.

➢ Zinc is the fourth most widely used metal across the globe.



National Employability Through Apprenticeship Program

Why in News

The **National Employability Through Apprenticeship Program (NETAP)** has released its latest edition of the **Apprenticeship Outlook Report** for 2021 (Jan-June 2021).

Note:

- **Apprenticeship is a Skill Training program** wherein a person is engaged by a company as an apprentice and gains classroom (theory) learning for a short period, followed by on-the-job (practical) training.

Key Points

- **About the National Employability through Apprenticeship Program:**
  - It was set up in 2014 as a 100% employer-funded **Public-Private Partnership (PPP)**.
  - The program was launched by the **Ministry of Skill Development and Entrepreneurship** and TeamLease Skills University (Gujarat).
  - It is in accordance with the **National Employability Enhancement Mission** of the **AICTE**.
  - NETAP was structured to **overcome the challenges of the Apprenticeship Act, 1961.**
    - NETAP **proposed to appoint 2 lac apprentices every year** for the next 10 years. At peak capacity, it will be the world's largest apprenticeship program.
  - It will help the unemployed youth to build skills through **Learning by doing and Learning while earning** along with providing them with access to practical skills.

National Employability Enhancement Mission

- It is a pioneering initiative taken **jointly by AICTE and Government of India.**
- Introduced in **2013**, the NEEM aims to **offer practical trainings to enhance employability** of any person who:
  - Is either pursuing graduation / diploma in any technical or non-technical stream, or
  - Have discontinued studies of degree or diploma courses.
- A NEEM Trainee is any registered person who has a **minimum education up to Class X** and is **between 16 to 40 years** of age.
- A total of **23 industries** have been listed in the NEEM where a trainee can be enrolled. It includes the automobile industry, pharmaceuticals, electronics & hardware, food processing, healthcare services and the financial sector.
- The NEEM is envisioned to place at least 10,000 students per year in registered companies or registered industries for the purpose of providing training.

- **Key Findings of the Apprenticeship Outlook Report:**
  - **India's Apprenticeship Ecosystem:** Some 41% of the employers in India are keen on hiring apprentices while 58% of enterprises want to increase the quantum of their apprenticeship hiring this year.
  - **Leading Cities: Chennai** has emerged as the most apprentice friendly city.
    - Among non-metro cities, **Ahmedabad and Nagpur** are the most promising cities for apprenticeship.
  - **Leading Sectors:** The manufacturing, automobiles and ancillaries, and retail are the leading sectors.
  - **Positive Trend for Hiring Women Apprentices:** Overall the preference for women apprentices has increased by 10% from the previous half year.
    - This trend was more visible in **Bengaluru, Mumbai and Kolkata.**
- **Significance:**
  - **India's working-age population is estimated to continue to increase through 2041.** This will have major implications on the required rate of job creation in the economy.
  - Statistics show that **approximately 3% of children dropout after grade 5th and 8th in the country** owing to socio-economic challenges. Apprenticeship can be an important mechanism for seamless transitioning from school to work and bridging of skill-gap in the workforce.
- **Other Initiatives to Promote Apprenticeships:**
  - Apprenticeship Act of 1961 (and the Amendments to the Act).
  - **Scheme for Higher Education Youth in Apprenticeship and Skills (SHREYAS)**
  - National Apprenticeship Promotion Scheme (NAPS)
  - **Skills Strengthening for Industrial Value Enhancement Scheme**
  - **YuWaah Youth Skilling Initiative**
  - **Pradhan Mantri Kaushal Vikas Yojana**

Pre-Pack Insolvency Resolution Process

Why in News

Recently, a **sub-committee of the Insolvency Law Committee (ILC)** has **recommended a pre-pack framework**

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within the basic structure of the **Insolvency and Bankruptcy Code (IBC), 2016.**

- The Government had constituted a sub-committee of Insolvency Law Committee (ILC) in June, 2020 under the **chairmanship of Dr. M. S. Sahoo**, Chairperson, Insolvency and Bankruptcy Board of India (IBBI) to make recommendation on **Pre-Pack Insolvency Resolution Process (PPIRP).**

Key Points

- **Pre-Packs**:
  - A pre-pack is an **agreement for the resolution of the debt of a distressed company** through an agreement **between secured creditors and investors instead of a public bidding process.**
    - This system of insolvency proceedings has become an increasingly **popular mechanism for insolvency resolution in the UK and Europe** over the past decade.
  - In India's case, such a system would likely require that financial creditors agree on terms with potential investors and seek approval of the resolution plan from the **National Company Law Tribunal (NCLT)**.
- **Need for Pre-Packs**:
  - Slow progress in the resolution of distressed companies has been one of the key issues raised by creditors regarding the **Corporate Insolvency Resolution Process (CIRP)** under the IBC.
    - CIRP is the process of resolving the corporate insolvency of a corporate debtor in accordance with the provisions of the Code.
    - Under the IBC, stakeholders are required to complete the CIRP within 330 days of the initiation of insolvency proceedings.
- **Key Features of Pre-Packs:**
  - Pre-Pack usually **requires services of an insolvency practitioner** to assist the stakeholders in the conduct of the process.
    - The extent of authority of the practitioner varies across jurisdictions.
  - **Pre-pack envisages a consensual process** - prior understanding among or approval by stakeholders about the course of action to address stress of a **Corporate Debtor (CD)**, before invoking the formal part of the process.
  - **No requirement of Court Approval**: It does not always require approval of a court. Wherever it requires approval, the courts often get guided by commercial wisdom of the parties.
    - Outcome of the pre-pack process, where approved by the court, is binding on all stakeholders.
- **Advantages of Pre-pack Offer:**
  - **Quick Resolution**: Pre-pack, which enables a faster resolution, preserves and maximises value (of a company in a stressful state) and increases the possibility of resolution.
  - **Minimises Disruptions to the Business:** Since the CD continues with the existing management during pre-pack, it avoids the cost of disruption of business as it does not shift management to Interim Resolution Professional (i.e. unlike that in the CIRP process) and continues to retain employees, suppliers, customers, and investors.
  - **Group Resolution**: Given that resolution of a group of companies can be value-adding as compared to a separate insolvency proceeding for each company in distress, many jurisdictions are contemplating to make available an enabling framework for the same.
    - In the absence of any mechanism to effectively deal with insolvency of a group of companies in most jurisdictions, pre-packs have proved to be very helpful.
  - **Lighter on Courts**: The courts usually have limited infrastructural capacity and can perform its obligations within its limits.
    - A pre-pack has the potential to reduce litigation, due to its informal and consensual nature. It does not require involvement of the court during the informal part of the process and requires a minimum role of courts during formal process.
    - It is necessary to have a functional out of court restructuring process, so that the vast majority of cases are restructured out of bankruptcy, with the NCLT acting as a court of last resort if no agreement is possible.
- **Drawbacks of Pre-Packs**:
  - **Lack Transparency**:
    - The key drawback of a pre-packaged insolvency resolution is the **reduced transparency compared to the CIRP** as financial creditors would reach an agreement with a potential investor privately and not through an open bidding process.
    - This could lead to stakeholders such as **operational creditors raising issues of fair treatment**

Note:

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when financial creditors reach agreements to reduce the liabilities of the distressed company.

- **Insufficient Marketing**: The research shows that where no marketing is carried out pre-packs return less money to creditors.
- **No consideration is given to the future viability of the new company**: The **insolvency practitioner has no legal requirement** to look at the future viability of the new business emerging from a pre-pack sale.
  - His/her only legal responsibility is to the creditors of the old business.

CSIR Floriculture Mission

Why in News

Recently, **CSIR Floriculture Mission** has been approved for implementation in 21 States and Union Territories of India.

- **CSIR's Societal Portal** has also been launched along with the Android App.

Key Points

- **About the MIssion:**
  - **Floriculture is a branch of horticulture that deals with the cultivation, processing and marketing of ornamental plants** vis-à-vis landscaping of small or large areas, and **maintenance of gardens** so that the surroundings may appear aesthetically pleasant.
  - The mission will **focus on commercial floral crops, seasonal/annual crops, wild ornaments and cultivation of flower crops for honey bee rearing.**
    - Some of the popular crops include Gladiolus, Canna, Carnation, Chrysanthemum, Gerbera, Lilium, Marigold, Rose, Tuberose etc.
  - In the mission, available knowledge base in **Council of Scientific and Industrial Research (CSIR)** Institutes will be utilized and leveraged to help Indian farmers and industry.
    - The Indian floriculture market was worth Rs. 15,700 crore in 2018. The market is projected to reach Rs. 47,200 crore by 2024 during 2019-24.
- Along with **CSIR, other implementing agencies** involved are:
  - **Indian Council of Agricultural Research (ICAR),**
  - **Khadi and Village Industries Commission (KVIC),**
  - **APEDA and TRIFED,**
  - Fragrance and Flavour Development Centre (FFDC), Kannauj, and
  - **Ministry of Commerce** and **Ministry of Micro, Small and Medium Enterprises (MSME).**
- **Significance of the Mission:**
  - **Raising Income:** Floriculture has the potential to **provide employment** to a large number of people through nursery raising, floriculture farming, **entrepreneurship development** for nursery trade, value addition and export.
  - **Agro Climatic diversity:** India has diverse agro-climatic and edaphic conditions (physical, chemical, and biological properties of soil), and rich plant diversity, still it shares only 0.6% of the global floriculture market.
  - **Import Substitution: At least 1200 million USD worth of floriculture products are being imported by India every year** from different countries.
  - The **convergence** of Floriculture with **Apiculture (beekeeping)** as envisaged in the mission will yield even greater benefits.
- **Other Related Initiative (Mission for Integrated Development of Horticulture):**
  - Mission for Integrated Development of Horticulture (MIDH) is **a Centrally Sponsored Scheme** for the holistic growth of the horticulture sector covering fruits, vegetables, root & tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo.

Council of Scientific & Industrial Research

- It was established by the Government of India in September 1942 as an autonomous body. It comes under the **Ministry of Science & Technology.**
- It is known for its cutting edge research and development knowledge base in diverse science and technology areas.
- It has been **ranked first in the Nature Ranking Index-2020.**
  - The Nature Index provides close to a real-time proxy of high-quality research output and collaboration at the institutional, national and regional level.

Note:

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Amendment Of Insurance Ombudsman Rules, 2017

Why in News

Recently, the Union government amended the **Insurance Ombudsman Rules, 2017**, **bringing insurance brokers within the ambit** of the Insurance Ombudsman and also allowed policy holders to **file online complaints.**

Key Points

- **About:**
  - **Enlarged the Scope Of Complaints:** Earlier it was only disputes. Now the amended rules will cover even the **deficiencies in service on the part of insurers, agents, brokers and other intermediaries.**
  - **Introduced ICT Enabled Complaint Redressal:**
    - Enables making **complaints electronically.**
    - **Complaints management system** to enable policyholders to track the status of their complaints online.
    - **Video-conferencing for hearings.**
  - These amendments will strengthen the **timeliness and cost-effectiveness** of the mechanisms.
- **Empowering Ombudsman:**
  - A number of amendments have been made for securing the independence and integrity of the ombudsman selection process, while also building in safeguards to secure the independence and impartiality of the appointed persons while serving as ombudsmen.
  - The selection committee will now include an **individual with a track record** of promoting consumer rights or advancing the cause of consumer protection in the insurance sector.

Insurance Ombudsman

- **About:**
  - In exercise of the powers conferred by the **Insurance Regulatory and Development Authority Act, 1999** and in accordance with the **Redressal of Public Grievances Rules, 1998**, the office of Insurance Ombudsman was established by the Central Government.
  - Its powers, functions, terms of office etc. were laid in **Insurance Ombudsman Rules, 2017.**
- **Qualification:**
  - An Ombudsman shall be selected from amongst persons having experience of the insurance industry, civil service, administrative service or judicial service.
- **Selection:**
  - An Ombudsman shall be selected by a Selection Committee comprising of:
    - Chairperson of the **Insurance Regulatory and Development Authority (IRDA)** who is also the Chairman of the Selection Committee.
    - One representative each of the Life Insurance Council and the General Insurance Council from the Executive Council of Insurers.
    - A representative of the Government of India not below the rank of a Joint Secretary.
- **Term of Office:**
  - Three years and it is eligible for reappointment provided that no person shall hold office as an Ombudsman after he has attained the age of seventy years.
- **Duties and Functions:**
  - **Mediation And Counselling:** The Ombudsman shall act as counsellor and mediator relating to matters where there is written consent of the parties to the dispute.
  - **Grievance Redressal:** The IRDAI may, at any time refer any complaint or dispute relating to insurance matters to the Insurance Ombudsman.

Purple Revolution Under Aroma Mission

Why in News

Around 500 farmers across villages in Doda district in Jammu **had their incomes quadrupled after shifting from maize to lavender cultivation** which is being called **purple revolution.** It was possible due to initiatives taken under **Aroma Mission.**

Key Points

- **Purple Revolution (Under Aroma Mission):**
  - **About:**
    - First-time farmers were given free lavender

Note:

saplings and those who have cultivated lavender before were charged Rs. 5-6 per sapling.

- **Aim:**
  - To **support domestic aromatic crop based agro economy** by moving from imported aromatic oils to homegrown varieties.
- **Products:**
  - Main product is **Lavender oil** which sells for at least Rs. 10,000 per litre
  - **Lavender water**, which separates from lavender oil, is used to make incense sticks.
  - **Hydrosol**, which is formed after distillation from the flowers, is used to make soaps and room fresheners.
- **Main Agencies Involved:**
  - **Council of Scientific and Industrial Research (CSIR)** and **Indian Institute of Integrative Medicine, Jammu (IIIM Jammu),** the two bodies are mainly responsible for making purple revolution under the Aroma Mission a success.
- **Significance:**
  - Apart from being in sync with government policy of **doubling farm incomes** by 2022, lavender cultivation also provided employment to the district's women farmers thus gave impetus to inclusive growth.

- **Aroma Mission:**
  - **Objectives:** The CSIR Aroma Mission is envisaged to **bring transformative change in the aroma sector through desired interventions** in the areas of agriculture, processing and product development for fuelling the growth of aroma industry and rural employment.
    - The mission will promote the cultivation of aromatic crops for essential oils that are in great demand by the aroma industry.
  - It is expected to enable Indian farmers and aroma industry **to become global leaders in the production and export** of some other essential oils on the pattern of menthol mint.
  - It aims to provide **substantial benefits to the farmers in achieving higher profits**, utilization of waste lands and protection of their crops from wild and grazing animals.
- **Nodal Agencies:**
  - The nodal laboratory is CSIR-Central Institute of Medicinal and Aromatic Plants (CSIR-CIMAP), Lucknow. The participating laboratories are CSIR-Institute of Himalayan Bioresource Technology (CSIR-IHBT), Palampur; CSIR-Indian Institute of Integrative Medicine (CSIR-IIIM), Jammu etc.
- **Coverage:**
  - The scientific interventions made under the mission project would provide assured benefits to the growers of **Vidarbha, Bundelkhand, Gujarat, Marathwada, Rajasthan, Andhra Pradesh, Odisha** and other states where farmers are exposed to frequent episodes of weather extremes and account for maximum suicides.
  - Aromatic Plants include lavender, damask rose, mushk bala, etc.

CRCL Recognized as Regional Customs Laboratory

Why in News

Central Revenues Control Laboratory (CRCL), New Delhi, under the **Central Board of Indirect Taxes & Customs** has been recognized as a **Regional Customs Laboratory (RCL)** of the **World Customs Organisation (WCO)** for Asia-Pacific Region.

- With its recognition as RCL, CRCL joins a select group of Customs Laboratories in the region like those in Japan & Korea.

Key Points

- **About Central Revenues Control Laboratory (CRCL):**
  - **Established:** 1939.
  - With the introduction of instrument based testing, Revenue Laboratories are **facilitating faster clearances**, without compromising on law enforcement, and thereby playing a vital role in **trade facilitation**.
- **Regional Customs Laboratory:**
  - Their traditional work is the **chemical analysis** to determine tariff classification and the level of duties and other taxes.
  - Their role has evolved over time with changes in trade patterns and technical evolution.
  - Modern customs laboratories now play an important part in environmental protection

Note:

(e.g., controlling the trade of **ozone depleting substances**), **endangered species protection**, control of dangerous goods such as pesticides, **persistent organic pollutants**, **chemical weapons**, as well as narcotics and drug precursors, etc.

- **World Customs Organisation:**
  - The World Customs Organization (WCO), established in 1952 as the Customs Co-operation Council (CCC) is **an independent intergovernmental body** whose mission is to enhance the effectiveness and efficiency of Customs administrations.
  - At present, it **represents 183 Customs administrations** across the globe that collectively process approximately 98% of world trade.
  - **India had become the vice-chair (regional head) of the Asia Pacific region** of the WCO for a period of two years to June, 2020.
  - It is the **only international organization with competence in Customs matters** and which can rightly call itself the voice of the international Customs community.
  - It has its **headquarters in Brussels, Belgium.**
  - Some **Important Conventions/Mechanism** under WCO:
    - The **SAFE Framework** of Standards to Secure and Facilitate Global Trade.
    - The International **Convention on the Harmonized Commodity Description and Coding System** (HS Convention).
    - The International **Convention on the Simplification and Harmonization of Customs procedures** (revised Kyoto Convention or RKC).

Formation & Promotion of 10,000 FPOs

Why in News

Recently, the Ministry of Agriculture and Farmers Welfare celebrated the first anniversary of the **Central Sector Scheme titled 'Formation & Promotion of 10,000 Farmer Produce Organizations (FPOs)'.**

Key Points

- **Launch:**
  - In **February 2020,** at Chitrakoot (Uttar Pradesh) with a **budgetary provision of Rs. 6865 crore.**
- **About**:
  - More than **2200 FPOs** produce clusters have been allocated for the formation of FPOs in 2020-21.
  - Implementing Agencies (IAs) are engaging **Cluster-Based Business Organizations (CBBOs)** to aggregate, register & provide professional handholding support to each FPO for a period of **5 years**.
    - CBBOs will be the platform for an end to end knowledge for all issues related to FPO promotion.
- **Financial Assistance:**
  - Up to **Rs. 18.00 lakh per FPO for a period of 3 years.**
  - Provision has also been made for matching **equity grant up to Rs. 2,000 per farmer** member of FPO with a limit of **Rs. 15.00 lakh per FPO.**
  - Provision of a credit guarantee facility up to **Rs. 2 crores of project loan per FPO** from the eligible lending institution to ensure institutional credit accessibility to FPOs.
- **Significance**:
  - **Increase Farmers Income:**
    - It will promote the selling of farmers' produce from the farm gate of farmers thereby **enhancing farmers' income**.
    - This will shorten the supply chain and accordingly marketing costs will get reduced resulting in better income for farmers.
  - **Create Employment:**
    - It will accelerate more investment in marketing and value addition infrastructure near to farm gates creating more employment opportunities for rural youth.
  - **Make Farming Viable:**
    - It will make farming more viable by aggregating land.
- **Other Initiatives for Farmers:**
  - National Mission for Sustainable Agriculture.
  - Pradhan Mantri Krishi Sinchayee Yojana.
  - Rashtriya Krishi Vikas Yojana (RKVY).
  - Nutrient Based Subsidy (NBS) Programme.
  - Rashtriya Gokul Mission.
  - Pradhan Mantri Fasal Bima Yojana.
  - Paramparagat Krishi Vikas Yojana.

Note:

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Farmer Producer Organization

- A **Producer Organisation (PO) is a legal entity** formed **by primary producers**, viz. farmers, milk producers, fishermen, weavers, rural artisans, craftsmen.
  - PO is a **generic name** for an organization of producers of any produce, e.g., agricultural, non-farm products, artisan products, etc.
- A PO can be a **production company, a cooperative society or any other legal form** which **provides for sharing of profits/benefits among the members**.
  - In some forms like producer companies, institutions of primary producers can also become a member of PO.
- The concept of **'Farmer Producer Organizations, (FPO)'** consists of **collectivization of producers especially small and marginal farmers** so as to form an effective alliance to collectively **address many challenges of agriculture** such as improved access to investment, technology, inputs, and markets. FPO is one type of PO where the members are farmers.
- FPOs are generally **mobilized by promoting institutions/resource agencies (RAs)**.
  - **Small Farmers' Agribusiness Consortium (SFAC)** is providing support for the promotion of FPOs.
- The resource agencies leverage the support available from governments and agencies like **National Bank for Agriculture and Rural Development (NABARD)** to promote and nurture FPOs.

India Emerged out of Technical Recession

Why in News

The Indian economy has emerged out of **technical recession** as it **grew at 0.4% in the third (October-December) quarter of 2020-21** with improvement in manufacturing, construction and agriculture.

- The **Gross Domestic Product (GDP)** had contracted by 24.4% and 7.3% in the April-June and July-September quarters, respectively, marking a technical recession in the aftermath of the Covid-19 pandemic.
- A **technical recession** is when a country **faces a continuous decline** for two consecutive quarters in the GDP.

Key Points

- **Growth Projections:**
  - For the **full fiscal year (2020-21)**, the **National Statistical Office (NSO)** has projected **a contraction of 8%**, higher than the forecasts of the **Economic Survey** (7.7 %) and the **Reserve Bank of India** (7.5 %).
  - The **real GDP growth estimate for the third quarter (2020-21) is at 0.4%.** In the **corresponding quarter last year,** the economy **had grown 3.3 %.**
  - For the April-June quarter (Q1) and July-September (Q2), the contraction numbers were revised from 23.9% to 24.4% and 7.5% to 7.3%, respectively.
- **Growth Across Major Sectors:**
  - **Industries and Services Sector:**
    - With improved performance of manufacturing, electricity and construction, **industry recorded a growth rate of 2.6% in the third quarter** against the contraction in the first two.
    - However**, services,** with the largest share in GDP at 57%, **still remained in the contraction zone with a 0.9%** fall year-on-year.
      - **Financial, real estate and professional services grew 6.6% as against 9.5% contraction** in the previous quarter and 5.5% growth in the corresponding period last year.
      - **Mining, trade, hotels, transport, communication and broadcasting services and public administration services continued to stay in the negative territory** in the third quarter registering a contraction of 5.9 %, 7.7%, and 1.5%, respectively.
  - **Cores Sector Output:**
    - India's eight core sectors **recorded a meagre 0.1% rise in output** in January 2021, propped up by a 5.1% rise in electricity, 2.7% growth in fertilizers and 2.6% growth in steel production, even as the other five sectors contracted.
    - Coal, crude oil, natural gas, refinery products, and cement recorded negative growth in January.
    - The **eight core industries constitute 40.27% of the Index of Industrial Production.**
  - **Agriculture:**
    - Growth in agriculture **jumped 3.9% in October-December** compared with 3% growth in July-September and 3.4% growth during the corresponding quarter last year.

Note:

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- **Reasons:**
  - **New Investment:**
    - The positive momentum seen in investment demand (**Gross Fixed Capital Formation - GFCF**) as it **grew by 2.6%** in the third quarter after being in doldrums for several quarters now.
      - **GFCF:** It is essentially net investment. It is a component of the Expenditure method of calculating GDP.
    - This is the result of unrelenting efforts of the government to go all-out to revive investments under the ambit of the various measures which formed a part of the **Atma Nirbhar Bharat** package.
    - Going forward, the growth stimuli available from the **Union Budget 2021-22** and the additional measures including the **Production-Linked Incentive (PLI)** will lead to a strong growth path over the recovery horizon.
  - **Increase in Centre's Capital Expenditure:**
    - The resurgence of **Government Final Consumption Expenditure (GFCE)** in Q3 and Centre's capital expenditure increased year-on-year by 129% in October, 249% in November and 62% in December.
      - **GFCE** is an aggregate transaction amount on a country's national income accounts **representing government expenditure on goods and services** that are used for the direct satisfaction of individual needs (individual consumption) or collective needs of members of the community.
  - **V-shaped Recovery**:
    - The Q3 GDP numbers showed the success of the government's initial policy of **"lives over livelihood"**. "The **sharp V- shaped recovery** has been driven by rebounds in both **Private Final Consumption Expenditure (PFCE) and Gross Fixed Capital Formation (GFCF)** as a combination of astute handling of the lockdown and a calibrated fiscal stimulus.
      - **PFCE:** It is defined as the **expenditure incurred by the resident households and non-profit institutions serving households (NPISH) on final consumption of goods and services,** whether made within or outside the economic territory.
- **Other Economic Indicators:**
  - **Domestic Consumption:** Disaggregated data show that **domestic consumption continued to contract**, at 58.6% of GDP in Q3, as against 60.2% during the corresponding period of last fiscal.
  - **Government Spending:** Government spending, as reflected by the GFCE, dipped a tad to 9.8% of GDP in Q3 from 10% during Q2.
  - **GVA Estimates:** The growth rate in terms of Gross Value Added (GVA) — which is **GDP minus net product taxes**, and reflects growth in supply — is seen **contracting 6.5% in 2020-21** as against earlier estimates of 7.2% and 3.9% in the previous year.
  - **GDP in Nominal Terms:** It **factors in inflation**, and is estimated at (-) 3.8% in 2020-21.

Merchant Digitization Summit 2021

Why in News

Recently, the **Government of India**, **Federation of Indian Chambers of Commerce and Industry (FICCI)**, and UN-based **Better Than Cash Alliance** hosted **Merchant Digitization Summit 2021**: **Towards Atma Nirbhar (Self Reliance) Bharat**.

- The Summit brought together leaders from the public and private sectors **to accelerate responsible digitization of merchants in India's North-Eastern and Himalayan regions, and Aspirational districts.**

Key Points

- **Highlights of the Summit:**
  - **Empowering women merchants** who play critical roles in their communities is one of the priorities to help achieve the mission of **Digital India.**
  - The **National Language Translation Mission** can be used to disseminate digital payments information, privacy clauses and consent in local languages for trust and empowerment.
  - Identified opportunities to **address the challenges of connectivity, access to smartphones, and digital literacy** for merchants at the last mile.
  - Along with the increased focus on **'Make in India'** through Atmanirbhar Bharat Scheme, responsible digitization must more strongly include rural

Note:

networks such as **Self Help Groups** and community enablers.

- This will lead to creation of the local digital ecosystems **to help millions of merchants join the formal economy,** access credit, and grow their business.

- From an average of 2-3 billion digital transactions monthly, **India has set an ambitious target for 1 billion digital transactions per day.**
  - **Person to Merchant (P2M) digital payment transactions will scale to 10-12 billion transactions every month** to contribute to India's digital economy.

- **Related Recent initiatives:**
  - **Digital Payments Index.**
  - **Payments Infrastructure Development Fund (PIDF) scheme.**
  - Relaxations in **Merchant Discount Rate.**
- **Better Than Cash Alliance (BTCA):**
  - **About:** BTCA is a partnership of governments, companies, and international organizations that accelerates the transition from cash to responsible digital payments to help achieve the **Sustainable Development Goals**.
  - **Foundation**: It was launched by the United Nations Capital Development Fund, the United States Agency for International Development, the Bill & Melinda Gates Foundation, Citigroup, the Ford Foundation, the Omidyar Network, and Visa Inc.
    - It is based at the **United Nations**.
    - It was **created in 2012.**
  - **Members**: The Alliance has **75 members** which are committed to digitizing payments in order to boost efficiency, transparency, women's economic participation and financial inclusion, helping build economies that are digital and inclusive.
    - Members do not want to abolish physical cash but rather want to provide responsible digital payment options that are "better than cash".
    - **India became a member of the Better Than Cash Alliance in 2015** to digitize payments to achieve financial inclusion and to share success stories from **Pradhan Mantri Jan Dhan Yojana**, the world's largest financial inclusion program.
- **Federation of Indian Chambers of Commerce & Industry (FICCI)**:
  - FICCI is a **non-government, not-for-profit organisation established in 1927.**
  - It is the largest and oldest apex business organisation in India whose history is closely interwoven with India's struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies.

Maritime India Summit 2021

Why in News

'Maritime India Summit 2021' is being organised by the Ministry of Ports, Shipping and Waterways.

Key Points

- **Focus Area:**
  - To further the port-led development along the 7,516-km long coastline.
  - India will invest **USD 82 billion** in port projects **by 2035 (under Sagarmala Programme)**, raise the share of **clean renewable energy sources** in the maritime sector, **develop waterways** and **boost tourism** around lighthouses.
  - India aims to operationalise 23 waterways by 2030.
  - Through the focus area of **upgradation of infrastructure,** India aims to strengthen the vision of **Atmanirbhar Bharat**.
- **Current Status of Indian Ports:**
  - India has 12 **major ports** and several minor ports along its West and East coast.
  - Capacity of major ports have increased from **870 million tonnes in 2014 to 1550 million tonnes** in 2021.
  - Indian ports have measures such as: **Direct port Delivery, Direct Port Entry** and an upgraded **Port Community System (PCS)** for easy data flow that has helped in reduced waiting time for inbound and outbound cargo.
- **Significance:**
  - It will help in growth of the maritime sector and promote India as a leading **Blue Economy** of the world.
  - Further the **Maritime India Vision 2030**.
- **Other Initiatives for Port Development:**
  - **The Sagar-Manthan**: Mercantile Marine Domain Awareness Centre has also been launched.

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- It is an information system for enhancing maritime safety, search and rescue capabilities, security and marine environment protection.

❍ **Ship repair clusters** will be developed along both coasts by 2022.

❍ **Domestic ship recycling industry** will also be promoted to create **'Wealth from Waste'**.

- India has enacted **Recycling of Ships Act, 2019** and agreed to the **Hong Kong International Convention.**

❍ India aims to increase usage of **renewable energy** to more than 60% of total energy by 2030 across Indian ports.

Sagarmala Programme

➢ The Sagarmala Programme was **approved by the Union Cabinet in 2015** which aims at holistic port infrastructure development along the 7,516-km long coastline through modernisation, mechanisation and computerisation.

➢ Under this port-led development framework, the government hopes to increase its cargo traffic three-fold.

➢ It also includes the establishment of rail/road linkages with the port terminals, thus providing last-mile connectivity to ports; development of linkages with new regions, enhanced multi-modal connectivity including rail, inland water, coastal and road services.

MSME Credit Health Index

Why in News

The latest **MSME Credit Health Index** indicates that MSME credit growth has accelerated in the quarter ending September 2020 as compared to the quarter ending in June 2020.

➢ The **Emergency Credit Line Guarantee Scheme (ECGLS)** has helped in the credit growth for the **Micro, Small and Medium Enterprises (MSME)** sector.

Key Points

➢ **About the MSME Credit Health Index**:

❍ **Launch**: The **TransUnion CIBIL** in partnership with the **Ministry of Statistics & Programme Implementation (MoSPI)** has launched MSME Credit Health Index.

- The Index is **published quarterly**.

❍ **Aim:** To provide **a measure of the growth and strength of the MSME sector** in India.

- The Index will provide government, policy makers, lenders and MSME market participants, a numeric indicator for benchmarking the health of the MSME sector.

❍ **Measurement:** The Index measures the credit health of India's MSME industry on two parameters i.e, **growth** and **strength**. Both the growth and strength indices **follow the principle of higher the better.**

- **Growth** is measured by plotting increase in exposure value (outstanding balances) over time.
  - An increasing Growth Index indicates improvement in credit growth.
- **Strength** is measured by decrease/increase in credit risk in terms of **non-performing assets (NPA).**
  - An increasing Strength Index implies better asset quality and therefore denotes an improvement in the structural strength of the sector.

❍ **Significance**: This measurement model will facilitate better MSME credit risk management, formulation of strategies and policies to support the revival and resurgence of the MSME sector and the economy.

➢ **Latest Data**:

❍ The overall growth index inched up to 114 points, which is a three-point increase from 111 in June, 2020.

❍ The overall Strength Index also improved to 89 from 83 over the same period.

➢ **About the Emergency Credit Line Guarantee Scheme**:

❍ The scheme was launched as part of the **Aatmanirbhar Bharat Abhiyan package** announced in May 2020 to mitigate the distress caused by **coronavirus**-induced lockdown, by providing credit to different sectors, especially **Micro, Small and Medium Enterprises (MSMEs)**.

❍ The ECLGS provides for the **Guaranteed Emergency Credit Line (GECL) facility**.

- The GECL is a loan for which 100% guarantee is provided by the National Credit Guarantee Trustee Company (NCGTC) to Member Lending Institutions (MLIs) - banks, financial institutions and **Non-Banking Financial Companies** (NBFCs).

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- The loans are extended in the form of additional working capital term loan facility in case of banks and additional term loan facility in case of NBFCs to eligible Micro, Small and Medium Enterprises (MSMEs)/business enterprises and interested **Pradhan Mantri Mudra Yojana (PMMY)** borrowers.

National Credit Guarantee Trustee Company Ltd

- NCGTC is a **private limited company** incorporated under the **Companies Act, 1956** in 2014, established by the Department of Financial Services, Ministry of Finance, as a wholly owned company of the Government of India, to act as a common trustee company for multiple credit guarantee funds.
  - Credit guarantee programmes are designed to share the lending risk of the lenders and in turn, facilitate access to finance for the prospective borrowers.

EPFO: Interest Rate for 2020-21

Why in News

Recently, the **Employees Provident Fund Organisation (EPFO)** recommended that subscribers be given **8.5% interest rate** for **Provident Fund contributions (under Employees' Provident Funds Scheme)** for 2020-2021.

Employees' Provident Funds (EPF) Scheme

- **EPF** is the main scheme under the **Employees' Provident Funds and Miscellaneous Act, 1952**.
- This scheme **offers the institution of provident funds** for factory employees and other establishments.
- The employee and employer each contribute **12%** of the employee's basic salary and dearness allowance towards EPF.
  - The **Economic Survey** 2016-17 had suggested that **employees be allowed to choose** whether or not to save 12% of their salary into EPF or keep it as take home pay.
- As per current laws, **a person mandatorily becomes a member of EPF if his monthly salary does not exceed Rs. 15,000.**

Key Points

- **Interest Rate:**
  - The interest rate was **kept the same** as the previous year.
    - In March 2020, EPFO had **reduced interest rate on provident fund deposits to 8.5%** for the year 2019-2020.
    - The interest rate was **8.65% in 2018-19** and **8.55% for 2017-18**.
- **High Returns:**
  - Amid falling interest rates owing to the **economic slowdown** throughout 2020 due to the **Covid-19 pandemic**, the EPFO has managed to **hold on to the high interest rate** of 8.5% in the current year.
- **Reason for High Returns:**
  - The interest rate recommended was a **result of the income from interest from debt investment** and **income from equity investment**.
    - EPFO had decided to **liquidate investment in equity** through **exchange traded funds**, which it had started in **2015-2016.**
    - This has **enabled EPFO to provide higher return** to its subscribers and still allowing EPFO with healthy surplus to act as cushion for providing higher return in future also.

Key Terms

- **Debt Investment:**
  - It refers to an investor **lending money** to a firm or project sponsor with the expectation that the borrower will **pay back the investment with interest.**
- **Equity Investment:**
  - It is the money that is invested in a company **by purchasing shares** of that company in the stock market.

Employees Provident Fund Organisation

- It is a **government organization** that manages **provident fund and pension accounts** for the workforce engaged in the organized sector in India.
- It implements the **Employees' Provident Fund and Miscellaneous Provisions Act, 1952**.
  - The Employees' Provident Fund and Miscellaneous Provisions Act, 1952 provides for the institution of provident funds for employees in factories and other establishments.
- It is administered by the Ministry of Labour & Employment, Government of India.

Note:

- It is **one of the World's largest Social Security Organisations** in terms of clientele and the volume of financial transactions undertaken.

PLI Scheme for Telecom Sector

Why in News

The Union Cabinet has approved the **Production-Linked Incentive (PLI) scheme for the telecom sector** with an outlay of **Rs. 12,195 crores over five years.**

MAKE-IN-INDIA PUSH
What's the scheme: It will offer gear makers annual cash incentives of 4-7% on any increase in sales of locally made equipment over the next five years, compared with 2019-20 levels
Objective: To make India an electronics production hub, create jobs and cut imports, especially from China
Expected benefit: Offsetting import of telecom equipment worth more than ₹50,000 crore
Incremental production: ₹2.4 trillion worth of equipment in 5 years

Key Points

- **About the PLI Scheme:**
  - In order to **boost domestic manufacturing** and **cut down on import bills**, the central government in **March 2020** introduced a scheme that aims to give companies incentives on incremental sales from **products manufactured in domestic units.**
  - Apart from **inviting foreign companies to set shop in India**, the scheme also aims to encourage local companies to set up or expand existing manufacturing units.
  - The Scheme has been approved for many sectors including **electronic products**, **IT hardware, pharmaceuticals, automobiles and components**, etc.
- **PLI Scheme for Telecom Sector:**
  - **About:**
    - This Scheme is **for domestic manufacturing of telecom and networking products** such as switches, routers, 4G/5G radio access network, wireless equipment and other internet of things (IoT) access devices.
    - It will be **operational from 1st April, 2021.**
  - **Eligibility for the Scheme:**
    - It is subject to **achieving a minimum threshold of cumulative incremental investment and incremental sales** of manufactured goods.
    - The **cumulative investment can be made at one go**, subject to annual cumulative threshold as prescribed for four years being met.
    - **2019-20 will be treated as the base year** for computation of cumulative incremental sales of manufactured goods net of taxes.
  - **Incentives:**
    - An investor who qualifies for the scheme **will be incentivised up to 20 times the minimum investment threshold**, enabling them to utilise their unused capacity.
  - **Higher Incentives for MSMEs:**
    - For Micro, Small and Medium Enterprises (MSMEs), the **minimum investment threshold has been kept at Rs. 10** crore, while **for others** it is **Rs. 100 crore**.
    - For MSMEs, a **1% higher incentive** is also proposed in the **first three years.**
- **Significance:**
  - The scheme is expected to lead to **an incremental production of about Rs. 2.4 lakh crore**, with **exports of about Rs. 2 lakh crore** over five years and bring in **investments of more than Rs. 3,000 crore.**
  - It is also likely to **generate 40,000 direct** and **indirect employment** opportunities and **generate tax revenue of Rs. 17,000 crore** from telecom equipment manufacturing.
  - Through this scheme, India will move towards self-reliance. Currently, **India imports over 80%** of its telecom and wireless networking equipment.

New Umbrella Entity for Payment Systems

Why in News

The **private companies** have shown interest in setting

Note:

up **New Umbrella Entities (NUEs)** for payment systems - an idea floated by the **Reserve Bank of India (RBI)** .

- The aim is to create an **alternate mechanism** to the existing **National Payments Corporation of India (NPCI)**.

Key Points

- **New Umbrella Entities (NUEs)**:
  - **About:** NUEs will be a **non-profit entity** that will **set-up, manage and operate new payment systems**, especially in the retail space such as **ATMs, white-label PoS**; **Aadhaar-based payments and remittance services**.
  - **Functions Envisaged:**
    - NUEs will develop **new payment methods**, **standards** and **technologies**.
    - These will **operate clearing and settlement systems**, **identify and manage relevant risks** such as settlement, credit, liquidity and operation and **preserve the integrity** of the system.
    - These will **monitor retail payment system developments and related issues** in the country and internationally **to avoid shocks**, **frauds** and **contagions** that may adversely affect the system and the economy in general.
- **Need for NUEs:**
  - **Limitations of NPCI**: Currently, the umbrella entity for providing retail payments system is NPCI, which is a non-profit entity, owned by banks.
    - NPCI operates settlement systems such as **UPI**, **AEPS**, **RuPay**, **Fastag**, etc.
    - Players in the payments space have indicated the various pitfalls of NPCI being the only entity managing all of retail payments systems in India.
  - **To Increase Competitiveness**: RBI's plan to allow other organisations to set up umbrella entities for payments systems aims to expand the competitive landscape in this area.
    - Players planning to establish these NUE aim to get an even bigger share in the digital payments sector.
- **Framework Related to NUEs:**
  - **Owned and Controlled by Residents:** The promoter or the promoter group for the NUE should be **'**owned and controlled by residents' with 3 years' experience in the payments ecosystem.
    - The **shareholding pattern should be diversified.** Any entity holding more than 25% of the paid-up capital of the NUE will be deemed to be a promoter.
  - **Capital**: The umbrella entity shall have a minimum paid-up capital of Rs. 500 crore.
    - No single promoter or promoter group should have more than 40% investment in the capital of the entity.
    - A minimum net worth of Rs. 300 crore should be maintained at all times.
  - **Governance Structure**: The NUE should conform to the norms of corporate governance along with 'fit and proper' criteria for persons to be appointed on its board.
    - The RBI retains the **right to approve the appointment of directors** as also to nominate a member on the board of the NUE.
  - **Foreign Investment:** Allowed in NUEs as long as they comply with the **existing guidelines.**

Rationalisation of Railway Fares

Why in News

The **Parliamentary Standing Committee** on Railways has suggested **rationalisation of both freight and passenger fares.**

Key Points

- **Committee's Observation:**
  - **Social Service Obligations:**
    - The **losses incurred by the railways in passenger services purportedly due to the social service obligations** which include pricing tickets at fares lower than costs and passenger concessions.
    - The railways incur losses to the tune of **Rs. 35,000-38,000 crore a year** in the passenger segment.
  - **Effect of Covid:**
    - Revenues from passenger services further deteriorated due to suspension of operations during **Covid-19**,.
  - **Operating Ratio:**
    - Noted the regular deterioration in Railways **Operating Ratio (OR).**

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- **OR** indicates how much the Railways spend to earn a rupee. It helps determine the financial health of the Railways.
- For example, an operating ratio of **98.36% for 2019-20,** indicates that to earn Rs. 100, the Railways will have to spend Rs. 98.36.
  - For **2020-21**, it is estimated to be **131.4%**.
  - For **2021-22,** Railways is targeting OR of **96.15%.**

➢ **Challenges in the Functioning of Railways**:

- Indian Railways' ills are as multifarious as they are well-known: **bureaucratic, obese structure** with a **misconceived perception of public-service-obligation, warped investment priorities**, **capacity crunch on arterial routes,** strained terminals, **irrational fare & freight structures.**
- It has **one of the highest rail freight charges in the world**. This has also **resulted in consumers moving to roadways** for freight transportation, which is more convenient for them.
- The predicament of the railways is that the **profits earned from freight business are utilised to compensate for the losses incurred on passenger and other coaching services**, thereby adversely affecting both freight and passenger business.

➢ **Committee's Suggestions**:

- **Revisiting social service obligations** and resuming services suspended during covid.
- **Adjust Passengers Fares:**
  - Undertake **"prudent adjustment"** of passenger fares **to reduce the burden on freight segments**.
- **Make Fares Demand-cum-Market Driven**:
  - Both passenger fares and freight rates have to be **demand-cum-market driven** and fixed differently for different segments.
- **Retain Customers:**
  - As the demand for transport is elastic in a competitive market the Railways should be mindful of the fact that **any increase in fares should be confined to a certain limit depending upon the competition from other transport modes.**
  - The operational efficiencies of the railways in both freight and passenger business have to be leveraged to a greater extent so as to **retain the customer base and enhance revenues.**
- **Strengthen Planning and Management:**
  - The railways should **strengthen their planning, management and monetary mechanisms** to earn substantial non-fare revenues through various methods/sources, already intended and put in place.
    - **For example**: Dividends from its public sector undertakings, land lease, parking, sale of scrap, advertisements and publicity etc.
  - Railway **finances should be managed prudently** so that the **OR may reach at acceptable level** in the near future.

Recent Steps

➢ **Draft National Rail Plan:**

- In December 2020, in an endeavour to address the inadequacies of capacity constraints and improve its modal share in the total freight ecosystem of the country, Indian Railways had come up with a Draft National Rail Plan.

➢ **Dedicated Freight Corridor:**

- It is **a high speed and high capacity railway corridor** that is exclusively meant for the transportation of freight, or in other words, goods and commodities.

➢ **Introduction of Policy for Private Passenger Trains Operations:**

- In July 2020, Indian Railways initiated the process to allow **private firms to operate passenger trains on its network through 151 new trains**.

➢ **Adarsh Station Scheme:**

- It aims to upgrade the suburban stations of India to **Adarsh stations**.

➢ **Restructuring of the Railway Board and Merger of Different Railway Officer Cadres:**

- In 2019-20, the government **approved the re-structuring of the Indian Railways,** including a reduction in the Board strength as well as the merger of the different cadres into a central service called the **Indian Railway Management Service (IRMS).**

Sub-Mission on Agroforestry Scheme

Why in News

The **Ministry of Agriculture and Farmers Welfare**

Note:

signed a **Memorandum of Understanding** (MoU) with the **Central Silk Board** on **a convergence model** for the implementation of **Agroforestry in the silk sector**. It is a part of the ongoing **Sub-Mission on Agroforestry (SMAF) Scheme.**

- Earlier, the Government of India allocated Rs. 2161.68 crores for three years i.e. 2017-2020 to its **Central Sector Scheme 'Silk Samagra'** for the development of **sericulture** in the country.

Key Points

- **Convergence Model:**
  - **Aim:**
    - To **incentivize the farmers to take up sericulture based Agroforestry** models thereby contributing to the Make in India and Make for the World vision of the Prime Minister.
  - **About:**
    - This linkage will add another dimension to agroforestry for **faster returns** to the growers as well as **support the production** of the range of silks that India is famous for.
    - The **Central Silk Board (CSB - under the Ministry of Textiles)** will act as a catalyst to promote Agroforestry in the silk sector.
      - **CSB** is a statutory body established in the year **1948 by an Act of Parliament.**
    - The initiative of formalizing the collaboration in the sericulture sector is especially targeted for augmentation of sericulture host plants e.g. **Mulberry, Asan, Arjuna, Som, Soalu, Kesseru, BadaKesseru, Phanat, etc.** to be cultivated both as block plantations and border or peripheral plantations on farmlands.
  - **Significance:**
    - Planting sericulture based tree species on the farm bunds and rearing silkworms will help in **creating additional income opportunities for farmers besides their regular source of income** from agriculture activities.
    - It will contribute to the Prime Minister's vision of **doubling farmers' income by 2022.**
- **Sub-Mission on Agroforestry (SMAF) Scheme:**
  - **About:**
    - The **Department of Agriculture, Cooperation and Farmers Welfare** (DAC & FW) has been implementing the SMAF since **2016-17** as part of the recommendation of the **National Agroforestry Policy 2014.**
      - India was the **first country to have such a comprehensive policy** which was launched at the World Agroforestry Congress held in Delhi in February 2014.
    - The scheme is implemented **only in the states having liberalized transit regulations for the transport of timber** and will be extended to other states as and when such relaxations are notified by them.
      - At present, the scheme is being implemented in **20 States and 2 UTs.**
    - The scheme **promotes endemic species or tree species that come with medicinal value**.
      - Exotic species are not promoted by the scheme.
  - **Aim:**
    - To encourage farmers to **plant multi-purpose trees** together **with the agriculture crops for climate resilience and an additional source of income** to the farmers, as well as **enhanced feedstock** to inter alia wood-based and herbal industry.
  - **Funding:**
    - It is operational under the funding pattern **60:40 (Central government: State government)** basis for all states except for 8 states of North East Region, the hilly states of Himachal Pradesh and Uttarakhand where it would be **90:10** fund sharing. For Union Territories (UTs), the assistance will be 100% from the Central government.
  - **Beneficiaries:**
    - Farmers would be supported financially to the extent of **50% of the actual cost of the interventions** (limited to 50% of the estimated cost as indicated in the Cost norms) for the respective interventions.
    - **Farmers groups/ Cooperatives** and **Farmer Producers Organization (FPO)** can also avail the benefit of the programme but the assistance can be accessed as per norms and provisions applicable to the individual farmers.
    - At least **50% of the allocation is to be utilized for small, marginal farmers** of which at

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least **30% should be women beneficiaries/ farmers**. Further **16% & 8%** of the total allocation or in proportion of SC/ST population in the district will be utilized for **Special Component Plan (SCP)** and **Tribal Sub Plan (TSP)** respectively.

- Farmers **must have a soil health card** to get the benefit under the programme.

Agroforestry

- Agroforestry is defined as a **land use system which integrates trees and shrubs on farmlands and rural landscapes to enhance productivity, profitability, diversity and ecosystem sustainability.**
- It is a dynamic, ecologically based, natural resource management system that, through **integration of woody perennials on farms and in the agricultural landscape, diversifies and sustains production and builds social institutions.**

Sericulture

- **About:**
  - It is an **agro-based industry**.
  - It involves **rearing of silkworms** for the production of raw silk, which is the yarn obtained out of cocoons spun by certain species of insects.
  - The **major activities** of sericulture consist of **food-plant cultivation** to feed the silkworms which spin silk cocoons and **reeling the cocoons for unwinding the silk filament** for value-added benefits such as processing and weaving.
  - Domesticated silkworms (Bombyx mori) are raised for the purpose of sericulture.
- **Silk Production in India:**
  - There are **five major types of silk** of commercial importance, obtained from different species of silkworms.
    - These are **Mulberry, Oak Tasar & Tropical Tasar, Muga and Eri.**
  - Except for mulberry, other **non-mulberry varieties of silks are wild silks, known as vanya silks.**
  - India has the unique distinction of producing all these commercial varieties of silk.
  - **South India is the leading silk producing area of the country** and is also known for its famous silk weaving enclaves like Kancheepuram, Dharmavaram, Arni, etc.

India's Biggest Floating Solar Power Plant

Why in News

India's **biggest floating solar power plant** by generation capacity (100 MW) is being developed by the **National Thermal Power Corporation Limited (NTPC)** at **Ramagundam in Peddapalli district of Telangana**.

- The project is in line with India's commitment to attain the target of 175 GW of installed **renewable energy** capacity by 2022 including 100 GW of solar installed capacity.

Key Points

- **Floating Solar Plants:**
  - It refers to the **deployment of photovoltaic panels on the surface of water bodies.** They are **a viable alternative to land-based solar arrays** with applications in India.
    - There are **a large number of major reservoirs in the Southern Region** which provides a huge opportunity to go for renewable energy in the floating solar method.
  - **Projects Coming up in India:**
    - The thermal plant at **Ramagundam** would be one of the renewable (solar) energy plants being developed by NTPC with an installed capacity of 447MW in the Southern Region and the entire capacity would be commissioned by March 2023.
    - The renewable energy plants that are likely to be commissioned in the next three months are 25 MW floating solar plant at **Simhadri thermal power plant** near **Visakhapatnam** and 92 MW floating solar plant at **Kayamkulam** in **Kerala.**
- **Advantages**:
  - **Address Land Acquisition Issues**: The key challenges that face renewable energy plant owners are land acquisition, grid connectivity, regulations and off-take.
    - Floating solar plants balance high population density and competing uses for available land. The land can be used for other purposes, such as farming or construction.
  - **Cooling Effect**: The bodies of water exert a **cooling effect**, which improves the performance of solar photovoltaic panels by 5-10%.

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- Over time, this translates into **significant cost savings.**

❍ **Other Advantages**: Reduced grid interconnection costs, reduced water evaporation, improved water quality, and reduced **algal blooming.**

➢ **Challenges:**

❍ **Increased Cost**: Engineering and construction costs are usually higher than those of a ground-mounted solar farm.

❍ **Safety Issues**: Since floating solar involves water and electricity, more consideration must be given to cable management and insulation testing than on land, especially when cables are in contact with water.

❍ **Degradation and Corrosion**: A floating solar plant has moving parts that are subject to constant friction and mechanical stress.

- Systems that are poorly designed and maintained could suffer from catastrophic failures.
- The installation is at risk of degradation and corrosion due to moisture, especially in more aggressive coastal environments.

❍ **Understanding of Water-bed Topography**: Developing floating solar projects requires a thorough understanding of water-bed topography and its suitability for setting up anchors for floats.

➢ **Other Solar Energy Initiatives:**

❍ **National Solar Mission :** Solar energy has taken a central place in India's **National Action Plan on Climate Change** with the **National Solar Mission** as one of the key Missions.

❍ **INDCs target**: It targets installing 100 GW grid-connected solar power plants by the year 2022.

- This is in line with India's **Intended Nationally Determined Contributions (INDCs)** target to achieve about 40% cumulative electric power installed capacity from non-fossil fuel based energy resources and to reduce the emission intensity of its GDP by 33 to 35% from 2005 level by 2030.

❍ **Launch of ISA**: The launch of the **International Solar Alliance (ISA)** was announced by the Prime Minister of India and the President of France in 2015, at the **21st session of the United Nations Climate Change Conference of the Parties (COP-21)** in Paris, France.

❍ **Government Schemes**: Such as **Solar Park Scheme**, **Canal bank & Canal top Scheme**, Bundling Scheme, **Grid Connected Solar Rooftop Scheme** etc.

❍ **One Sun One World One Grid**: India has an ambitious cross-border power grid plan **'One Sun One World One Grid'** that seeks to transfer solar power generated in one region to feed the electricity demands of others.

Licensing Conditions for Telecom Companies Amended

Why in News

The D**epartment of Telecommunications (DoT)** has amended **licensing conditions for telecom companies.** The new norms will be implemented from **15th June 2021.**

Key Points

➢ **New Licensing Conditions:**

❍ **Aim:**

- To **include defence and national security as parameters** when purchasing **'trusted telecom products'** and sourcing equipment from '**trusted telecom equipment sources'**.

❍ **Provisions:**

- Telecom companies can use **telecom products only from trusted sources** in its network and **must take permission** from the designated authority (**National Cyber Security Coordinator)** if they plan to upgrade their existing network **using telecom equipment that has not been designated as a trusted product.**
- The new norms **will not impact the annual maintenance contracts or upgrades to existing equipment** already being used by the telcos in their networks.

➢ **Trusted Telecom Products/ Trusted Telecom Equipment Source:**

❍ **About:**

- It is simply **a product, a company, or a technology that has been deemed safe by the government** of a nation for use in its crucial and critical infrastructure.

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- **Classification:**
  - In December 2020, India's Cabinet Committee on Security had approved the setting up of a new **National Security Directive** on the telecommunication sector with an intent **to classify telecom products** and their sources under the **'trusted'** and '**non-trusted'** categories.
  - **National Cyber Security Coordinator** has been made the **designated authority for deciding on the list of trusted and non-trusted telecom** equipment sources and products.
    - Its decisions will be made based on approval of a committee headed by the deputy **National Security Advisor (NSA)**.
    - Apart from the deputy NSA, **the expert committee will have members from other departments and ministries, and independent experts as well** as two members from the industry.

- **Impact:**
  - The new policy could potentially make it more **difficult for Chinese telecom equipment vendors** like Huawei and ZTE to supply equipment to Indian telecom players in the future.
    - Both Huawei and ZTE **have been under global scrutiny for allegedly installing 'backdoor' or 'trapdoor' vulnerabilities** and s**pying for the Chinese government** and have been banned by several countries.
- **Significance:**
  - Telecom equipment plays a vital role in telecom connectivity and data transfer, which has a direct impact on the national security of India therefore this change will **help in strengthening national security of India.**
  - Demand for local equipment will rise which will further promote the vision of **Make-in-India** and **Atmanirbhar Bharat.**

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Note:

International Relations

Highlights

- *Pakistan-Sri Lanka and India*
- *India-Bangladesh Bilateral Meet*
- *ICC Investigations into Israel-Palestine War Crimes*
- *Switzerland's Policy of Neutrality*
- *India-USA Bilateral Trade*
- *Humanitarian Assistance to Drought-Hit Madagascar*
- *India-Sweden Virtual Summit*
- *West Container Terminal Offer to India-Japan: Sri Lanka*
- *Falling Rupee Reserves of Iran*
- *Push for Chabahar Port in INSTC Corridor*
- *Uighur Muslims*
- *Significance of India-Bangladesh Transport Connectivity: World Bank*
- *Bharat Bangla Maitri Bridge*
- *First Leaders' Summit: QUAD*

Pakistan-Sri Lanka and India

Why in News

Recently, **Pakistan's Prime Minister visited Sri Lanka.** It is the first Pakistani PM visit to Sri Lanka since 2016 and first visit by any head of government to Sri Lanka since the **Covid-19** pandemic began.

Key Points

- **Sri Lanka-Pakistan Relationship (Background):**
  - **Trade:**
    - Sri Lanka and Pakistan have a **free trade agreement** dating back to 2005. **Pakistan is Sri Lanka's second largest trading partner** in South Asia **after India.**
  - **Culture:**
    - Over the last decade, **Pakistan** has also tried to work on a cultural connection with Sri Lanka by **highlighting its ancient Buddhist connections and sites.**
  - **Defence Cooperation:**
    - Defence ties are **a strong pillar** of the Sri Lanka-Pakistan bilateral relationship.
    - During the 1971 Indo-Pak war, Sri Lanka allowed refuelling of Pakistani Jets.
    - In its **Civil war against the Liberation Tigers of Tamil Eelam (LTTE)** in 2009, Sri Lanka turned to Pakistan for arms and ammunition, as well as training for its fighter pilots, in the last stages of the war.
    - Recently, Sri Lanka participated in **Pakistan's multi-nation naval exercise Aman-21.**
- **About the Visit:**
  - **Defence Credit Line Facility:**
    - **Pakistan has offered a USD 50 million new credit line to Sri Lanka** to boost cooperation in defence and security sectors.
  - **Enhancing Cultural Ties:**
    - Pakistan **will set up a centre for the study of Asian cultures and civilisation at Peradeniya University** in Kandy.
    - Sri Lanka also **named a sports institute in Colombo after Pakistan's PM**, highlighting the cricket connection between the two countries.
- **Significance of the Visit:**
  - **For Pakistan:**
    - **Enhancing Trade Ties:**
      - Pakistan invited Sri Lanka to "take advantage" of the **China Pakistan Economic Corridor** to enhance trade ties. In the past, Colombo had pitched for an economic corridor overland for access to countries beyond.
  - **For Sri Lanka:**
    - **Seeking Support in UNHRC:**
      - Recently, Sri Lanka has made an appeal to the member states of the **United Nations Human Rights Council (UNHRC)** to reject the impending resolution on the island nation's human rights accountability and reconciliation.

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- Sri Lanka is facing a **new UNHRC resolution** calling on it to hold human rights abusers to account and deliver justice to victims of the **26-year civil war (1983-2009)** between the Sinhalese-dominated Sri Lankan government and the **Liberation Tigers of Tamil Eelam (LTTE)** insurgent group fighting for Tamilian minorities.

- **Balancing Ties with India and Pakistan:**
  - It provided an opportunity to Sri Lanka to balance its ties with India and Pakistan.
  - Sri Lanka **cancelled Pakistan's PM address** to the Parliament over concerns that he would **raise the Kashmir issue.**
- **Repairing Anti-Muslim Image:**
  - This visit may repair the damage of Sri Lanka's image in the Islamic world as it recently **denied burials of bodies of Muslims who have died of Covid-19.**
  - **Muslims**, who make up about **11% of Sri Lanka's population**, have had **tense relations with the Sinhala Buddhist majority** for much of the last decade, with riots shattering the uneasy calm every few years.

Concerns For India

- **Hamper Efforts of Isolating Pakistan:**
  - As Sri Lanka's closest neighbour with strong, all encompassing ties, India has not perceived Pakistan as a serious rival in Colombo so far.
  - However, this visit signalled that despite India's best efforts at "isolating" Pakistan, it has friends in the neighbourhood.
- **Increasing Closeness to China:**
  - Pakistan's PM visit soon after **Sri Lanka's abrupt withdrawal from a tripartite agreement (**along with Japan and India) for the development of the **East Container Terminal at Colombo port**, and the award of a **contract to a Chinese company** to set up a **hybrid renewable energy** in an island off Jaffna is a reason for concern for India.
- **Threatening India's Interests in Indian Ocean Region:**
  - Increasing convergence of interests between Sri Lanka, China, and Pakistan in the Indian Ocean region is a matter of concern.
  - Sri Lanka's role is central in accomplishment of India's strategic vision (**SAGAR**) for the Indian Ocean, and countering China's **String of Pearls** strategy.
  - **Pakistan's extension of the line of credit to Sri Lanka** comes close on the heels of **India extending USD 50 million line of credit to neighbouring Maldives** for strengthening navy capabilities and **USD 100 million to Mauritius** for shoring up coastal defences.
- **Connectivity:**
  - The Gwadar port is connected to China's Xinjiang province by the CPEC which in turn is a strand of the ambitious multi-billion dollar Belt and Road Initiative launched by China in 2013.
  - The latest invitation to Sri Lanka from Pakistan comes as **India is trying to get work restarted on Chabahar port in Iran** which New Delhi sees as a route to landlocked Central Asia and Afghanistan bypassing Pakistan.
- **Concerns over Radicalisation by Pakistan:**
  - Sporadically, the Indian security establishment has voiced concerns about Pakistan's role in the radicalisation of Muslims — especially in Eastern Sri Lanka.

India-Bangladesh Bilateral Meet

Why in News

Recently, India's External Affairs Minister visited Bangladesh for a bilateral meet.

- This meeting comes ahead of **Indian Prime Minister's visit to Bangladesh** scheduled in March 2021.
- Earlier a 122-member contingent of the Bangladesh Armed Forces has participated in the 72nd **Republic Day** parade, **commemorating 50 years of the 1971 India-Pakistan war that led to the liberation of Bangladesh**.

Key Points

- **Bangladesh's Stand:**
  - **Resolution of Problems:**
    - Problems between neighbouring

Note:

countries should be resolved **through discussions and negotiations.**

- **Prioritising Each Others Benefit:**
  - Need to focus on possible ways to materialise commitments and accommodate each other's priorities in a mutually beneficial manner.
- **Cooperation During Covid-19:**
  - Bangladesh **acknowledged** the collaborative initiative of the two countries in implementing the **vaccination programme** against the ongoing pandemic.
  - Bangladesh purchased the **Covid** vaccine from **Serum Institute of India.**
    - Bangladesh is the **largest recipient of 9 million doses** of Made in India vaccine.
- **Multidimensional Relationship:**
  - Both countries are committed to expand their relationship in all dimensions, ranging from **security, trade, transport and connectivity, culture, people-to-people ties, energy**, joint development of our **shared resources and defence.**

➢ **India's Stand:**

- **Congratulated Bangladesh:**
  - On its graduation from the **Least Developed Country (LDC)** status.
    - Bangladesh has been on the **United Nation**s(UN) Least Developed Countries list since 1975.
    - Bangladesh fulfilled all the criteria necessary for its elevation to a developing country in 2018.
    - Therefore the **UN** has recommended **graduation of Bangladesh from the category of Least Developed Country (LDC)**.
    - Once it receives the final recommendation**, Bangladesh will formally graduate to the developing nation bracket in 2026.**
- **More than Strategic Partners:**
  - India-Bangladesh relations transcend strategic partnership, and **bonding of both the countries is central** to the realisation of a dream of a **peaceful, prosperous and progressive South Asia.**
- **Continued Interaction During Covid:**
  - Despite the Covid **pandemic**, interactions and consultations continued unabated such as:
    - **India and Bangladesh had a Virtual Summit in December 2020**.
    - A Joint Consultative Commission between the two Foreign Ministers in September 2020.
- **Teesta Issue:**
  - India and Bangladesh would have a meeting of Water Resources secretaries to discuss the **Teesta** issue.
- **Development of Connectivity:**
  - India is keen to **focus on the development of connectivity** with Bangladesh and beyond for next 20 years to change the **region's geo-economic scenario.**
- **Bangladesh Central to India's Policies:**
  - Bangladesh was central to India's **Neighbourhood First' policy** and increasingly relevant to the country's **Act East Policy**.
  - Bangladesh as a **key neighbour and a valued partner** not only in South Asia but also in the broader **Indo-Pacific region**.
- **Progress on Ground Situation:**
  - Practical progress has been made on the ground.
    - Conducting a **trial run of container cargo** through **Chattogram port** to Agartala.
    - Adding two new protocol routes to **inland waterways connecting Tripura to the national waterways.**
    - Handing over **10 broad gauge locomotives**.
    - Forming a **Joint venture in the energy sector**.

ICC Investigations into Israel-Palestine War Crimes

Why in News

International Criminal Court (ICC) has launched investigatations into the war crimes in **Palestinian territories occupied by Israel** (West Bank and the Gaza Strip).

Key Points

➢ The decision for investigation is taken after a recent ruling that the court's jurisdiction extends to territories

Note:

occupied by Israel since the **1967 Six-day Arab- Israeli war.**

- In this war, Israeli forces seized the **Golan Heights** from Syria, the **West Bank & East Jerusalem** from Jordan and **Sinai Peninsula & Gaza strip** from Egypt.

- The investigation is also expected to cover the **2014 Gaza war, the 2018 Gaza border clashes** and **Israeli settlement-building in the West Bank.**
  - The inquiry will also look at whether rocket fire by **Hamas and other groups from Gaza** amounts to war crimes.

- **About ICC:**
  - Governed by an international treaty called **'The Rome Statute'**, the ICC is the world's first permanent international criminal court.
  - Headquarters: **The Hague, Netherlands.**
  - It investigates and, where warranted, tries individuals charged with the gravest crimes of concern to the international community: **genocide, war crimes, crimes against humanity** and the **crime of aggression.**
  - Through international criminal justice, ICC aims to hold those responsible for their crimes and to help prevent these crimes from happening again.
  - **India is not a party to Rome Statute** along with the USA and China.

Golan Heights

- The Golan Heights is a rocky plateau with an area of 1,800km² on the border between Israel and Syria in south-western Syria.
- It is a strategic location that Israel captured from Syria in the 1967 war. Israel effectively annexed the territory in 1981.
- Recently, the USA has officially recognized Jerusalem and Golan Heights as a part of Israel.

Switzerland's Policy of Neutrality

Why in News

Recently, Switzerland's Ambassador said that its traditional foreign **Policy of Neutrality (Swiss Neutrality)** has become **attractive again because of the changing political reality** in the world.

Key Points

- **Policy of Neutrality:**
  - It is a foreign policy position wherein a **state intends to remain neutral in future wars.** A sovereign state that reserves the right to become belligerent if attacked by a party to the war is in **a condition of armed neutrality.**
  - A permanently neutral power is a sovereign state which is bound by international treaty, or by its own declaration, to be **neutral towards the belligerents of all future wars**. An example of a permanently neutral power is Switzerland. Other being Ireland, Austria, etc.
    - The concept of neutrality in war is **narrowly defined and puts specific constraints on the neutral party** in return for the internationally recognized right to remain neutral.
  - **International Day of Neutrality** is a **United Nations** recognized day held on **12th December** each year to raise public awareness of the value of neutrality in international relations.
    - National policies of neutrality are aimed at promoting the **use of preventive diplomacy,** which is a core function of the **United Nations**.

Note:

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- The **term "Preventive diplomacy"** refers to diplomatic action taken to prevent disputes from escalating into conflicts and to limit the spread of conflicts when they occur.

➢ **Swiss Neutrality and its Evolution:**

- Switzerland is renowned for its neutrality, but this should not be confused with pacifism. The country **maintains an army,** including obligatory conscription for men, and did so throughout both World Wars.
- The last time Switzerland (Swiss) fought a military battle was **500 years ago**, against the **French** (the Swiss lost).
- In 1783, Switzerland was **acknowledged as a neutral state** in the **Treaty of Paris**.
  - The Treaty of Paris was signed in Paris by Great Britain and the United States of America and Canada on 3rd September, 1783, and it officially ended the **American Revolutionary War**.
- Switzerland maintained its impartial stance through **World War I (1914-18)**, when it mobilized its army and accepted refugees but also refused to take sides militarily.
- In 1920, meanwhile, the newly formed **League of Nations** officially recognized Swiss neutrality and established its headquarters in Geneva.
- A more significant challenge to Swiss neutrality came during **World War II**, when the country found itself encircled by the **Axis powers**. However even then Switzerland maintained its independence by promising retaliation in the event of an invasion.
- Since World War II, Switzerland has taken a more active role in international affairs by aiding humanitarian initiatives, but it remains fiercely neutral with regard to military affairs. It has never joined the **North Atlantic Treaty Organization (NATO)** or the **European Union**, and only joined the **United Nations** in 2002.
- In the 21st century, Switzerland is again becoming a destination for dialogue on difficult issues.
  - Discussions on Syria, Libya and Yemen were held in Geneva.

➢ **Significance for India:**

- India's policy of **Non-alignment** and **Switzerland's traditional policy of neutrality** have led to a close understanding between the two countries.
- In 1948, a **Treaty of Friendship** was concluded between both the countries. Both believe in the spirit of **democracy and pluralism**.

Non-Aligned Movement

➢ **About**:

- It is **a forum of 120 developing world states** that are not formally aligned with or against any major power bloc.

➢ **Origin**:

- The group was **started in Belgrade, Yugoslavia in 1961.**
- It was created by Yugoslavia's President, Josip Broz Tito, **India's first PM, Jawaharlal Nehru**, Egypt's second President Gamal Abdel Nasser, Ghana's first president Kwame Nkrumah, and Indonesia's first President, Sukarno.
- The most important antecedent to the formation of the Non-Aligned Movement was the **Bandung Conference of 1955.**

➢ **Objectives**:

- It has sought to "**create an independent path in world politics that would not result in member States becoming pawns in the struggles between the major powers.**"
- It identifies the right of independent judgment, the **struggle against imperialism and neo-colonialism**, and the use of moderation in relations with all big powers as the three basic elements that have influenced its approach.
- At present, an additional goal is facilitating a **restructuring of the international economic order.**

➢ **Principles:**

- Respect for **fundamental human rights** and of the objectives and principles of the Charter of the **United Nations**.
- Respect for the **sovereignty and territorial integrity** of all countries.
- Recognition of **equality among all races** and of **equality among all nations,** both large and small.
- **Non-interference** or **non-intervention** into the internal affairs of another country.
- Respect the **right of every nation** to defend itself, either individually or collectively, in conformity with the Charter of the United Nations.

Note:

- **Non-use of collective defence pacts** to benefit the specific interests of any of the great powers.
- Refraining from acts or threats of aggression and use of force against the territorial integrity or **political independence** of any nation.
- Settlement of all international disputes by peaceful means.
- Promotion of **mutual interest and cooperation.**
- Respect for justice and international obligations.

India-USA Bilateral Trade

Why in News

According to annual reports of **US Trade Representative (USTR**), India's recent emphasis on **import substitution** through the '**Make in India**' **campaign** is one the several challenges facing the bilateral trade relationship.

Key Points

- **Bilateral Trade between India and USA:**
  - In 2019-20, the bilateral trade between the USA and India stood at **USD 88.75 billion**.
  - The USA is one of the few countries with which **India has a trade surplus.**
  - India's trade surplus with the USA increased to USD 17.42 billion in 2019-20 from USD 16.86 billion in 2018-19.
  - For the USA, **India was the sixth largest** supplier of services imports.
  - India's large market, economic growth, and progress towards development make it an essential market for USA exporters.
- **Issues in the Trade Relationship:**
  - **Tariffs**: Both the countries cite market barriers including both tariff and non-tariff barriers, as well as multiple practices and regulations that disadvantage foreign companies.
  - **Generalised System of Preferences (GSP) Programme:** Effective from June 2019, the USA decided to withdraw duty-free benefits to Indian exporters under the **GSP programme**.
  - **Services:** A key issue for India is the **USA's temporary visa policies**, which affect Indian nationals working in the United States.
    - India also continues to seek a **"totalization agreement"** to coordinate social security protection for workers who split their careers between the two countries.
  - **Agriculture: Sanitary and phytosanitary (SPS) barriers** in India limit USA agricultural exports.
    - Each side also sees the other's agricultural support programs as market-distorting.
  - **Intellectual Property (IP):** The two sides differ on how to balance **IP protection** to incentivize innovation and support other policy goals, such as access to medicines.
    - India remains on the "**Special 301" Priority Watch List for 2020**, based on concerns owing to its treatment of patents, infringement rates, and protection of trade secrets.
  - **"Forced" Localization:** The United States continues to press India on its "forced" localization practices.
    - Initiatives to grow India's manufacturing base and support jobs include requirements for in-country data storage, domestic content (such as laws protecting India's solar sector), and domestic testing in some sectors.
    - India's new data localization requirements for electronic payment service suppliers such as MasterCard, Visa, etc.
  - **Investment:** US concerns about investment barriers remain nevertheless, heightened by new Indian restrictions on how e-commerce platforms such as Amazon and Walmart owned Flipkart conduct business.
  - **Defense Trade:** The United States urges more reforms in India's defense offsets policy and higher **Foreign Direct Investment (FDI)** caps in its defense sector.

Generalized System of Preferences

- The **Generalized System of Preferences (GSP)** is a USA trade program designed to promote economic growth in the developing world by providing preferential duty-free entry for up to 4,800 products from 129 designated beneficiary countries and territories.
- GSP was instituted on 1st January, 1976, by the Trade Act of 1974.

Note:

Humanitarian Assistance to Drought-Hit Madagascar

Why in News

India is sending a consignment of 1,000 metric tonnes of **rice** and 1,00,000 **hydroxychloroquine (HCQ) tablets to Madagascar** as assistance to deal with the humanitarian crisis triggered by a severe drought.

Key Points

- **About the Latest Assistance:**
  - The humanitarian assistance is being delivered on-board **Indian Naval Ship Jalashwa.**
  - During this trip, INS Jalashwa will also have on board an **Indian naval training team**, which is being deployed in Madagascar for c**apacity building and training** of the Malagasy Special Forces.
  - INS Jalashwa will also call at **Port Anjoun** in the **Republic of Comoros** where it will deliver a consignment of 1,000 metric tonnes of Indian rice.
- **Past Assistance to Madagascar:**
  - **Indian Naval Ship (INS) Kesari** carried food items and medical assistance teams to countries including Madagascar to deal with **Covid-19 pandemic** as part of a "**Mission Sagar**" initiative.
  - In March 2020, **INS Shardul** visited the port of Antsiranana and delivered 600 tonnes of rice as **Humanitarian Assistance and Disaster Relief (HADR)** assistance to Madagascar for dealing with heavy floods in the Northern region of Madagascar.
  - Indian Navy was the first to respond when **Cyclone Diane** struck Madagascar and prompt assistance was delivered under **Operation Vanilla** by INS Airavat in January 2020.
  - India is also actively engaged in training Malagasy people in capacity building and other high skilled/technical fields, courses for which are offered through **Indian Technical and Economic Cooperation (ITEC)** and **India Africa Forum Summit**.
- **Significance:**
  - The supplies of food assistance and support for capacity building to the friendly countries of Madagascar and Comoros is in line with the vision of **SAGAR.**
  - Showcases India's time-tested role as a **net security provider** in the Indian Ocean Region.
- **Recent Developments:**
  - India has been accepted as an observer of the **Indian Ocean Commission (IOC)**.
    - This has strategic importance as the Commission is an important regional institution in the Western/African Indian Ocean.
    - IOC consists of Madagascar, Comoros, La Réunion (French overseas territory), Mauritius and Seychelles as members.
  - India hosted **Indian Ocean Region (IOR) Conclave** to promote dialogue in an institutional, economic and cooperative environment that can foster the development of peace, stability and prosperity in the Indian Ocean region.
    - The Defence Minister of Madagascar also participated in it.

India-Sweden Virtual Summit

Why in News

Indian Prime Minister held a **Virtual Summit** with the Prime Minister of Sweden to discuss bilateral issues and other regional and multilateral issues of mutual interest.

- The Summit provided an opportunity to discuss the international situation and response to the **Covid-19 pandemic** as well as regional and global issues of mutual importance including climate action, sustainable

Note:

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development, gender equality, counter-terrorism and disaster resilient infrastructure, among others.

Key Points

- **Highlights of the Summit:**
  - **Economic Cooperation:**
    - Welcomed the **launch of a second joint industrial R&D call on Smart and Sustainable Cities**, Transport Systems, Clean Technologies and Digitalization and Internet of Things under **India-Sweden Collaborative Industrial Research & Development Programme**.
    - Confirmed the ambition to scale up bilateral research and innovation on **Circular Economy** including the themes of Health and Life Sciences and Waste to Wealth during 2021.
  - **Cooperation in Other Sectors:**
    - Welcomed the creation of a **Sweden-India Health Hub at AIIMS-Jodhpur**.
    - **Noted advances in hydrogen research and their possible applications**, i.e. in the Energy and other key industries.
  - **Cooperation at Multilateral Forums:**
    - Welcomed Sweden's decision to join the **International Solar Alliance (ISA)**.
    - Sweden **congratulated India on its eighth term as an elected member of the UN Security Council for 2021-2022.**
    - Reaffirmed the **importance of the urgent reform of the UN Security Council,** including its expansion not only to sustain credibility of multilateralism but also to deliver on the several serious common challenges facing humanity.
    - India **thanked Sweden for its support to India's permanent membership of a reformed and expanded UN Security Council.**
    - India **congratulated Sweden on assuming the Chairmanship of the OSCE (Organisation for Security and Cooperation in Europe).**
  - **Climate Action:**
    - Welcomed the USA re-entry into the **Paris agreement** which gives new momentum to global climate action ahead of **COP 26** to be held in **Glasgow, UK**.
    - Agreed to continue their outreach to expand the membership of the **Leadership Group on Industry Transition (LeadIT)**.
    - Agreed further to intensify their collaboration within the framework of the **Arctic Council** to address global environmental protection and combating climate change.
  - **Security:**
    - Welcomed the finalization of the **General Security Agreement in 2019** on the exchange and mutual protection of classified information, enabling a comprehensive partnership in all defence sectors.
    - Indian Prime Minister **invited Swedish defence firms to participate in the "Make in India programme", especially in the two Defence Production Corridors** in Tamil Nadu and Uttar Pradesh.
- **India - Sweden Relations:**
  - **Political Relations:** The first **India-Nordic Summit** took place in the year 2018.
    - The King and Queen of Sweden gave a Royal Visit to India in December, 2019.
  - **Economic and Commercial relations:** The bilateral trade between two countries presently stands around USD 2 billion. After China and Japan, India is Sweden's third largest trade partner in Asia.
    - The main items of **Indian exports to Sweden** are articles of apparel, clothing accessories; textiles yarn, fabrics, made-ups; manufactures of metals; road vehicles; general industrial machinery and equipment.

Note:

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- The main items of **Indian imports from Sweden** are pulp and waste paper; road vehicles; paper and paper board, general industrial machinery and equipment etc.

❍ Being a member of **European Union,** Sweden can play an important role in India's partnership with the European Union and EU countries.

❍ The close relations will **further the values of democracy**, rule of law, pluralism, equality, freedom of speech, and respect for human rights.

First India-Nordic Summit

➢ It was held in April, 2018.

➢ **India** and five Nordic countries - **Sweden, Norway, Finland, Iceland and Denmark** held the summit to deepen cooperation.

➢ **Significance of Nordic for India:**

❍ Discussion of key issues of **security, economic growth and climate change.**

❍ India can imitate **the Nordic approach** to innovation systems, characterised by a strong collaboration between public sector, private sector and academia.

❍ In areas like **clean technologies, maritime solutions, port modernisation, food processing, health, life-sciences and agriculture,** Nordic solutions can be useful.

Leadership Group on Industry Transition

➢ The Leadership Group for Industry Transition (LeadIT) gathers countries and companies that are committed to action to achieve the **Paris Agreement.**

➢ It was launched by the **governments of Sweden and India at the UN Climate Action Summit** in Sept 2019 and is supported by the **World Economic Forum.**

➢ LeadIT members subscribe to the notion that energy-intensive industry can and must progress on low-carbon pathways, aiming to achieve net-zero carbon emissions by 2050.

West Container Terminal Offer to India-Japan: Sri Lanka

Why in News

Sri Lanka has decided to offer the **West Container Terminal (WCT)** to Indian and Japanese companies.

➢ The decision comes a month after the Sri Lanka government ejected the two partners from a 2019 tripartite agreement to jointly develop the East Container Terminal (ECT), citing resistance to "foreign involvement".

Key Points

➢ **About:**

❍ Sri Lanka has approved the proposal to develop the WCT on **Build, Operate and Transfer (BOT)** basis for a period of 35 years as a public-private partnership with India's Adani Ports and Special Economic Zone Limited and its local representative in Sri Lanka. Japan is yet to name an investor.

➢ **Stakes:**

❍ In the ECT project agreed upon earlier, the Sri Lanka Ports Authority (SLPA) was to hold a majority 51% stake, but in the WCT proposal, India and Japan will be accorded 85% stake.

❍ This is similar to the terms set for the Colombo International Container Terminal (CICT), where China Merchants Port Holdings Company Limited holds 85% stake.

➢ **Significance:**

❍ The WCT is **adjacent to the China-run CICT** and just **a couple of kilometres away from the China-backed Port City** being built on reclaimed land, making it a strategically desirable spot for India, whose concerns over China's presence in Sri Lanka are well known.

❍ It will support India in accomplishment of its strategic vision **(SAGAR)** for the Indian Ocean, **'Neighbourhood First policy'** , and in countering China's **String of Pearls** strategy.

Note:

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- Colombo's alternative comes at a time when Sri Lanka is seeking **support at the ongoing UN Human Right Council session**, where a resolution on the country's rights record will soon be put to vote.

India - Sri Lanka Relations

- **Background: India-Sri Lanka relationship** is more than 2,500 years old and both sides have built upon a legacy of intellectual, cultural, religious and linguistic intercourse.
- **Support Against Terrorism:** During the course of the civil war, India supported the right of the Government of Sri Lanka to act against terrorist forces.
- **Support For Rehabilitation:** The **Indian Housing Project** is Government of India's flagship project of developmental assistance to Sri Lanka. Its initial commitment is to build 50,000 houses for those affected by the civil war as well as for the estate workers in the plantation areas.
- **Assistance during Covid-19: The Reserve Bank of India** (RBI) had signed an agreement for extending a **USD 400 million currency swap** facility to Sri Lanka to boost the foreign reserves and ensure financial stability of the country, which was badly hit by **Covid19 pandemic**. Recently, India has also supplied **Covid-19 Vaccine**s to Sri Lanka.
- **Joint Exercises:** India and Sri Lanka conduct joint Military **(Mitra Shakti)** and Naval exercise **(SLINEX)**.
- **Participation in Groupings:** Sri Lanka is also a member of groupings like **BIMSTEC** (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) and **SAARC** in which India plays a leading role.

Falling Rupee Reserves of Iran

Why in News

Recently, Indian merchants have almost entirely stopped signing new **export contracts** with Iranian buyers due to caution about **Iran's falling rupee reserves** with Indian banks.

- Earlier in 2020, the Ministry of External Affairs informed that **India is no longer involved in the Farzad-B gas field project of Iran**. The reasons included **policy changes by the Iranian government, Iran's uncertain finances,** and **the USA sanctions situation**.
- In 2020, Iran also passed a bill allowing the government to slash four zeros from the Rial and authorizing its replacement with **another basic unit of currency called the toman (redenomination).**

Key Points

- **Falling Reserves**:
  - Iran's rupee reserves in India's **UCO and IDBI Bank**, the two lenders **authorised to facilitate rupee trade**, have depleted significantly.
- **Reasons**:
  - Under the **USA sanctions**, **Iran is unable to use US dollars** to transact oil sales.
  - Iran previously had a deal to sell oil to India in exchange for rupees, which it used to import critical goods, including agricultural commodities, but **India stopped buying Tehran's oil in May 2019 after a US sanctions waiver expired.**
  - Iran **continued using its rupees to buy goods** from India, but **after 22 months of no crude sales, Iran's rupee reserves have fallen**.
    - Iran's reserves have reduced significantly and will be over soon probably because trade has stopped.
- **Implications**:
  - **Apprehension of Exporters:**
    - Exporters are **not sure whether they would be paid on time** for new shipments and they are avoiding dealing with Iran since payments are getting delayed.
  - **Falling Indian Exports**:
    - India's overall exports to Iran **fell 42% in 2020** from a year ago to USD 2.2 billion, the **lowest in over a decade**.

Note:

- The **fall is continuing in 2021** and in January this year exports more than halved from a year ago to **USD 100.20 million.**

❍ **Growing Influence of China:**

- Recently signed deals between Iran and China will **vastly expand Chinese presence** in banking, telecommunications, ports, railways and dozens of other projects.

❍ **Saving India's Interests**:

- The **China Iran strategic partnership** fructifying USD 400 billion deal may be an impediment for Indian entry routes into Afghanistan through **Chabahar** and further connectivity to **International North South Transportation Corridor (INSTC)**, although Iran has not given any signals of disruption of these projects.

❍ **India's Role in the Region:**

- Maintaining ties with Iran even as it forges a new relationship with Saudi Arabia and Israel is critical for **its balancing policy in West Asia.**

❍ **Avoiding Sectarian Tension**:

- Since **India is home to sizable populations of both Shia and Sunni Muslims** and seeks to isolate itself from any **sectarian tensions** in the region, India should do well to neither completely break off ties with Iran nor go against the United States outright.

❍ **India's Energy security:**

- India has stopped purchasing Iranian oil, which accounts for around **90% of its imports from the Islamic nation.**
  - India was Iran's **leading oil client** after China until **mid-2018**.

❍ **Pakistan's Influence**:

- Pakistan is very active in the Middle-east. Using the platform of **Organisation of Islamic Cooperation (OIC)** and making connections with the particular Arab countries, Pakistan is trying to get support on the **Kashmir issue**.

Push for Chabahar Port in INSTC Corridor

Why in News

India expressed its **intent to include Chabahar port in the 13-nation International North South Transport Corridor (INSTC)** that extends from India to Russia, and to **expand INSTC membership** by including Afghanistan and Uzbekistan, at a "Chabahar Day" event organised as part of **Maritime India summit.**

➢ This Summit saw participation from several regional officials including infrastructure Ministers from Afghanistan, Armenia, Iran, Kazakhstan, Russia and Uzbekistan.

Key Points

➢ **About India's Proposal:**

❍ Pitching for Chabahar in the INSTC which goes via Iran's biggest port Bandar Abbas, India proposed that the land route via Kabul (Afghanistan) and Tashkent (Uzbekistan) would form the INSTC's "Eastern corridor".

- India's push to include Chabahar in the INSTC could have been made with **an eye on the new Biden administration's push for restoring talks with Iran on the JCPOA nuclear agreement,** and the possible **easing of some sanctions.**

❍ Establishing an eastern corridor through Afghanistan would maximise its potential.

- India highlighted Chabahar's role in recent years in **sending Indian humanitarian aid and emergency supplies to Afghanistan and Iran** and in **opening up trade opportunities.**

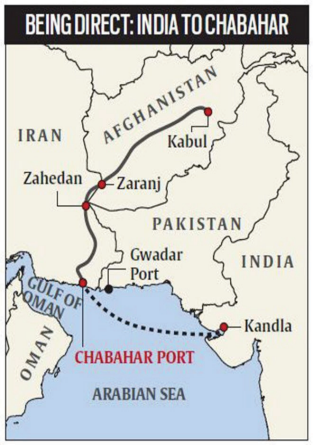
➢ **Chabahar Port:**

❍ **Location:**

- It is located on the Gulf of Oman and is only 72 km away from the **Gwadar port** in Pakistan which has been developed by China.

❍ **About:**

- It is the only Iranian port with direct access to the Indian ocean and consists of two separate ports named Shahid Beheshti and Shahid Kalantari.
- Afghanistan, Iran and India signed a tripartite agreement on



Note:

developing Chabahar port and setting up a trilateral transport and transit corridor in 2016.

- **Significance:**
  - **For India:**
    - **Connectivity:**
      1. It is **a key part of India's plans to enhance connectivity to Afghanistan and the Central Asian states.**
    - **Countering China and Pakistan:**
      1. It opens up **a permanent alternative route for trade** with Afghanistan and Central Asia, given the hurdles in the direct route through Pakistan.
      2. **China and Pakistan** are striving to increase their economic and trade cooperation through the China Pakistan Economic Corridor (CPEC) and Gwadar port, which both are part of **China's Belt and Road Initiative (BRI).**
    - **Part of Indo-Pacific Strategy:** Chabahar Port is a key element in India's Indo-Pacific strategy that also includes Eurasia's connection with the Indian Ocean Region.
  - **For Afghanistan:**
    - It will facilitate India's role in Afghanistan's development through infrastructure and education projects and also allow Afghanistan to have a commercial fleet under the Afghan flag sailing from Chabahar.
  - **For Central Asian Countries:**
    - Central Asian countries like– Uzbekistan and Kazakhstan– also view Chabahar Port as their gateway to the Indian Ocean Region.

➢ **International North-South Transport Corridor (INSTC):**

- It is a **multi-modal transportation established on 12th Sept 2000 in St. Petersburg,** by Iran, Russia and India for the purpose of promoting transportation cooperation among the Member States.
- The INSTC **was expanded** to include eleven new members, namely: the Republic of Azerbaijan, Republic of Armenia, Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Republic of Turkey, Republic of Ukraine, Republic of Belarus, Oman, Syria, Bulgaria (Observer).
- It envisions **a 7,200-km-long multi-mode network of ship, rail and road route** for transporting freight, aimed at reducing the carriage cost between India and Russia by about 30% and bringing down the transit time from 40 days by more than half.
- This corridor **connects India Ocean and the Persian Gulf to the Caspian Sea** via the Islamic Republic of Iran and then is connected to St. Petersburg and North Europe via the Russian Federation.

Uighur Muslims

Why in News

Recently, several hundred **Uighur Muslim** women in Turkey staged an **International Women's Day** march against the extradition agreement of Turkey with China and demanding the closure of **mass incarceration camps in China's Xinjiang Province.**

➢ Earlier in 2020, the **United States House of Representatives approved a legislation** calling for sanctions on Chinese officials responsible for oppression of Uighur Muslims.

Key Points

➢ **Uighur Muslims**:

- The Uighurs are a predominantly **Muslim minority Turkic ethnic group**, whose origins can be traced to Central and East Asia.
  - The Uighurs speak their own language, similar to Turkish, and see themselves as culturally and ethnically close to Central Asian nations.
- The Uighurs are considered to be **one of the 55 officially recognized ethnic minority communities in China.**
  - However, China recognises the community only as a regional minority and **rejects that they are an indigenous group.**

Note:

- Currently, the largest population of the Uighur ethnic community lives in **Xinjiang region of China.**
  - A significant population of Uighurs also lives in the neighbouring Central Asian countries such as **Uzbekistan, Kyrgyzstan and Kazakhstan.**
  - **Xinjiang is technically an autonomous region within China** — its largest region, rich in minerals, and sharing **borders with eight countries, including India, Pakistan, Russia and Afghanistan.**

➢ **Persecution of Uighurs:**

- Over the past few decades, as economic prosperity has come to Xinjiang, it has brought with it in **large numbers the majority Han Chinese**, who have cornered the better jobs, and left the Uighurs feeling their livelihoods and identity were under threat.
  - This led to **sporadic violence, in 2009** culminating in a riot that killed 200 people, mostly Han Chinese, in the region's capital Urumqi.
- Uighur Muslims for decades, under the **false accusation by the Chinese government of terrorism and separatism,** have suffered from abuses including **persecution, forced detention, intense scrutiny, surveillance and even slavery.**
  - However, **China claims its camps to be 'educational centres'** where the Uighurs are being cured of "extremist thoughts" and radicalisation, and learning vocational skills.
- China claims that Uighur groups want to establish an independent state and, because of the Uighurs' cultural ties to their neighbours, leaders **fear that elements in places like Pakistan may back a separatist movement in Xinjiang.**

➢ **China's Extradition Treaty:**

- In December 2020, **China approved an extradition treaty with Turkey** aimed at strengthened judicial cooperation to facilitate a crackdown on transnational criminals including terrorists.
  - Extradition is the formal process of one state surrendering an individual to another state for prosecution or punishment for crimes committed in the requesting country's jurisdiction.
- The extradition agreement comes amidst **deepening economic and financial ties between Turkey and China.**
  - China is also Turkey's leading supplier of **Covid-19** vaccines.
- Since 1990, the **Uighur** diaspora in Turkey has become more vibrant and has attracted widespread attention globally through demonstrations, conferences, meetings and briefings.
- **Concerns of Uighur Muslims:**
  - **If Turkey ratifies the treaty**, this will be the **last nail in the coffin of Uighur culture** as China will silence the biggest Uighur diaspora outside Xinjiang.
  - The treaty will become another **instrument in the hands of China for the prosecution of its enslaved Uighur minority.**

➢ **India's Stand:**

- The Indian government has maintained near silence on the **Uighur** crisis.

Significance of India-Bangladesh Transport Connectivity: World Bank

Why in News

Recently, a **World Bank** report named **"Connecting to Thrive: Challenges and Opportunities of Transport Integration in Eastern South Asia"** stated that seamless **transport connectivity between India and Bangladesh** has the potential to increase national income by as much as 17% in Bangladesh and 8% in India.

➢ The report analyzes the **Bangladesh-Bhutan-India-Nepal (BBIN) Motor Vehicles Agreement (MVA)**.

Note:

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Key Points

- **Issues**:
  - **Trade**:
    - Bilateral trade accounts for only about **10%** of Bangladesh's trade and a mere **1%** of India's trade.
      - In **East Asian and Sub-Saharan African economies**, intraregional trade accounts for **50% and 22%** of total trade, respectively.
    - **High tariffs, para-tariffs, and nontariff barriers** also serve as major trade barriers. Simple average tariffs in Bangladesh and India are more than twice the world average.
  - **Difficulty in Crossing Border:**
    - Weak transport integration makes the border between Bangladesh and India thick. Crossing the India–Bangladesh border at **Petrapole–Benapole**, the most important border post between the two countries, takes several days.
      - In contrast, the time to cross borders handling similar volumes of traffic in other regions of the world, including **East Africa, is less than six hours**.
  - **Isolated North-East:**
    - Indian trucks are not allowed to transit through Bangladesh. As a result, the northeast of India is particularly isolated with the rest of the country and connected only through the **27-km-wide Siliguri corridor**, also called the **"chicken's neck"**. This leads to **long and costly routes.**
- **Benefits of Better Connectivity**:
  - **Increased Real Income:**
    - All districts in **Bangladesh** would benefit from integration, with the **eastern districts enjoying larger gains** in real income.
    - States bordering Bangladesh such as **Assam, Meghalaya, Mizoram, and Tripura in the northeast, and West Bengal** on the west, and states further away from Bangladesh such as **Uttar Pradesh and Maharashtra** would also **gain huge economic benefits** from seamless connectivity.
  - **Increased Exports:**
    - Will yield a **297%** increase in Bangladesh's exports to India and a **172%** increase in India's exports to Bangladesh.
  - **Strategic Importance:**
    - Geographically, Bangladesh's location makes it a **strategic gateway to India, Nepal, Bhutan, and other East Asian countries**. Bangladesh can also become an **economic powerhouse** by improving regional trade, transit and logistics networks.
- **Important Recommendations:**
  - **Strengthen the MVA:**
    - Harmonizing **driver's licensing and visa regimes.**
    - Establishing an **efficient regional transit** regime.
    - Rationalizing and **digitizing trade and transport** documents.
    - **Liberalizing** the selection of **trade routes**.
  - **Improving Regional Connectivity:**
    - **Expand the effective capacity** of core transport and logistics infrastructure along regional corridors.
    - Ensure **competition in transport service** markets.
    - Deploy **modern information technology infrastructure** at land ports and seaports.
    - Develop **off-border custom clearance facilities** in Bangladesh and India.
  - **Integration of Local Communities:**
    - Connecting local markets to regional corridors.
    - **Removing logistics bottlenecks** in export-oriented value chains.
    - Improving **women's participation in export-oriented agricultural value chains** at the macro, community, and household levels.

Note:

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Bangladesh-Bhutan-India-Nepal Motor Vehicles Agreement

- **BBIN**:
  - The **Bangladesh, Bhutan, India, Nepal (BBIN) Initiative** is a sub-regional architecture of countries in **Eastern South Asia**, a sub-region of South Asia.
  - The group meets through the official representation of member states to **formulate, implement and review quadrilateral agreements** across areas such as **water resources management, connectivity of power, transport, and infrastructure.**
- **MVA**
  - **About**:
    - It was signed on **15th June 2015** in Thimphu, Bhutan.
    - It seeks to facilitate the unrestricted cross-border movement of cargo, passenger, and personal vehicles between BBIN countries.
    - As per the agreement, **member countries would allow vehicles registered in the other countries to enter their territory under certain terms and conditions**. Customs and tariffs will be decided by the respective countries and these would be finalised at bilateral and trilateral forums.
    - **Implementation of the MVA has been delayed** as the countries work to clarify some of the provisions that are supposed to be elaborated in protocols.
  - **Objective**:
    - To provide **seamless people-to-people contact** and **enhance economic interaction by facilitating cross border movement** of people and goods.

Bharat Bangla Maitri Bridge

Why in News

Recently, the Prime Minister inaugurated **Bharat Bangla Maitri Bridge** in Tripura's South district.

Key Points

- **About**:
  - The bridge '**Maitri Setu**' has been built over the **Feni river** which flows between Indian boundary in Tripura State and Bangladesh.

  - **Feni** originates in the **South Tripura district**. The river passes through Sabroom town on the Indian side, and **meets the Bay of Bengal** after it flows into Bangladesh.
  - The **1.9 Km** long bridge joins **Sabroom (in Tripura) with Ramgarh (in Bangladesh).**
  - The name 'Maitri Setu' **symbolises growing bilateral relations** and friendly ties between India and Bangladesh.
- **Constructed by and Cost:**
  - The construction was taken up by the **National Highways and Infrastructure Development Corporation Ltd** at a project cost of **Rs. 133 crore**.
    - The National Highways and Infrastructure Development Corporation Limited is a **fully owned company of the Government of India.**
    - It is responsible for **development & maintenance of National Highways & Strategic Roads** of India.
- **Significance:**
  - Now **Agartala** (capital of Tripura) **will become the nearest city to an international sea port** in India.
  - Tripura will become the **'Gateway of North East'** with **access to Chittagong Port** of Bangladesh, which is just 80 km from Sabroom.
    - Bangladesh and India have a long standing and time-tested **Protocol on Transit and Trade** through inland waterways.
  - It would serve as a **new trade corridor** between the two countries, helping the **Northeast states grow.** It will **enhance people-to-people contact**.

First Leaders' Summit: QUAD

Why in News

Recently, the Prime Minister addressed the **first**

Note:

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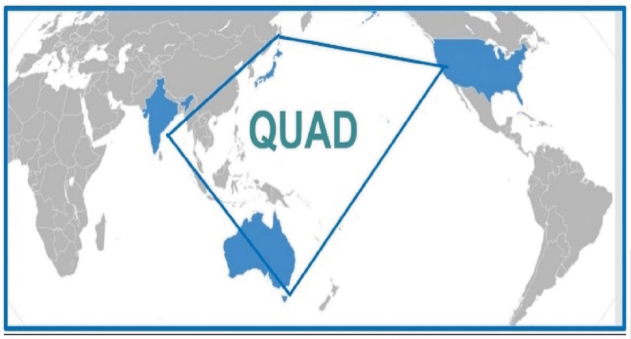
summit of the leaders' of the QUAD (Quadrilateral Framework). The meeting was **hosted by the USA** on a **virtual platform.**

- Earlier in February 2021, **QUAD ministerial meeting** discussed issues across Indo-Pacific and the military takeover in Myanmar.
- **QUAD** is a grouping of India, USA, Australia and Japan which aims to **safeguard the interests of democratic nations** in the **Indo-Pacific region** and **address global challenges.**



Key Points

- **Focus**:
  - On pressing crises, such as **Covid-19** , **climate change** and **emerging technologies.**
- **Pledge**:
  - QUAD pledged to promote a **free, open rules-based order**, rooted in international law **to advance security and prosperity** and **counter threats to both in the Indo-Pacific and beyond.**
- **Highlights**:
  - **Quad Vaccine Partnership**:
    - Agreed to ensure **"equitable" access to vaccines to counter the pandemic**.
      - Agreed to a **plan to pool their financial resources**, manufacturing capabilities and logistical strengths.
      - **Japan, USA and Australia will finance** the vaccine initiative that India has welcomed.
    - Appreciated the **Vaccine Maitri initiative (India's Vaccine Diplomacy)** of India.
      - **Vaccine Maitri Initiative** is an initiative launched by India to give **Covid-19 vaccines** to neighbouring countries.
  - **Discussion on China:**
    - The **Line of Actual Control (LAC)** was discussed by the QUAD leaders as one of several examples of **Chinese aggression**.
    - Other issues related to **Hong Kong**, **Xinjiang**, **Taiwan Strait** and coercion of Australia, harassment around the **Senkaku,** were also discussed.
    - Concerns regarding Chinese **cyberattacks** on the USA targets (Microsoft Exchange and SolarWinds) and also **cybersecurity incidents in India**, Japan and Australia were discussed.
- **India's Stand:**
  - QUAD is **united by its democratic values** and will remain an **important pillar of stability in the Indo-Pacific region.**
  - Called the meet an extension of the ancient Indian philosophy **'Vasudhaiva Kutumbakam'**, which regards the world as one family.
- **America's Stand:**
  - QUAD is not a military alliance or **North Atlantic Treaty Organization (NATO)** equivalent, it is an **opportunity to cooperate on economics, technology, climate and security**.
  - Maritime security, humanitarian and disaster response are core to the QUAD agenda.
  - QUAD is going to be a **vital arena for cooperation** in the Indo-Pacific region.
- **Australia's Stand:**
  - QUAD grouping could be the start of a **new, permanent and powerful regional grouping** of **like-minded democracies.**
- **Japan's Stand:**
  - Acknowledged the **new dynamism** that QUAD has received because of the meeting of the top leaders of the member countries.
  - It will firmly advance its cooperation to realise a free and open Indo Pacific, and to **make a tangible contribution to the peace, stability, and prosperity of the region, including overcoming Covid-19**.
- **China's Apprehension**:
  - Exchanges and cooperation between countries should **contribute to mutual understanding** rather than **targeting a third party and refrain from pursuing exclusive blocs.**
    - A meeting between the top diplomats of the USA and China is set to be held in Alaska later in March 2021.

Note:

- QUAD **should uphold the principles of openness,** inclusiveness and win-win results and do things that are conducive to regional peace, stability and prosperity.

QUAD

- **About**:
  - It is a **four-nation alliance** of India, Australia, USA and Japan which was **established in 2007.**
  - It is often dubbed as an **"Asian" or "mini" NATO**, and is viewed as a counterbalance to China's military and economic clout in the Indo-Pacific region.
    - The **2020 US-China Economic and Security Review Commission** shows China's growing power projection along the Indian Ocean rim with military or economic activities in countries like Pakistan, Sri Lanka, Maldives, Myanmar and Bangladesh.
  - Interestingly, the QUAD, which used to be known as the quadrilateral security dialogue, is now known as the **quadrilateral framework** to indicate it has gone beyond a narrow security dialogue.
- **Evolution:**
  - The group, which began with an ambitious geo-strategic vision 14 years ago, failed to take off initially due to hesitation among the four nations and objections by China.
  - In **December 2012**, Shinzo Abe again floated the concept of Asia's **"Democratic Security Diamond"** involving Australia, India, Japan and the USA to safeguard the maritime commons from the Indian Ocean to the western Pacific.
  - In **November 2017**, India, the USA, Australia and **Japan gave shape** to the long-pending "**QUAD**" Coalition to develop a new strategy to keep the critical sea routes in the Indo-Pacific free of any influence (especially China).
  - Since then, QUAD has **taken several steps to bolster military and strategic ties** with a series of working- and ministerial-level meetings.
- **Participation in Malabar Exercise:**
  - In 2020, all four QUAD Countries - Japan, India, Australia and the USA took part in the **Malabar exercise**.
  - Malabar exercise is an annual **trilateral naval exercise** between the navies of India, Japan, and the USA which is held alternately in the Indian and Pacific Oceans.

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Note:

Science and Technology

Highlights

- *New Technique for Monitoring of Power Transmission Cables*
- *International Cooperation: ISRO*
- *Equine Herpes Virus Outbreak in Europe*
- *National Science Day 2021*
- *National Cyber Security Strategy 2020*
- *Global Bio-India-2021*
- *53rd PSLV Flight*
- *Swachhta Saarthi Fellowship: Waste to Wealth Mission*
- *Most Distant Quasar P172+18*
- *International Lunar Research Station: Russia and China*
- *France's First Space Military Exercise: AsterX*
- *Genome Mapping in Indian Ocean*
- *Asteroid 2001 FO32*

New Technique for Monitoring of Power Transmission Cables

Why in News

Recently, researchers at IIT Madras have demonstrated that power transmission cable can be monitored by using Raman thermometry on the fibre optic cable.

- They achieved this by using the optical fibres that are already embedded in the power cables for establishing optical communication.

Key Points

- **Raman Thermometry:**
  - It is a thermal characterization technique which makes use of **Raman scattering phenomena** to determine the local temperature in microelectronics systems.
  - When light is scattered off an object, say a molecule, two bands are observed, with higher and lower frequency than the original light, called the **Stokes and anti-Stokes bands**, respectively.
  - By studying the relative intensity of the two bands, it is possible to estimate the temperature of the object which scatters the light.
    - The **anti-Stokes component of Raman scattering** is strongly dependent on the temperature that the material is subjected to. Thus, by measuring the intensity of the anti-Stokes scattered light we can estimate the temperature.
  - Any current flowing through a conductor would cause a temperature rise due to the Joule heating effect. Hence the flow of current through the power cables results in heating of the power cables.
    - **Joule heating** (also referred to as resistive or ohmic heating) describes the process where the energy of an electric current is converted into heat as it flows through a resistance.
- **Optical Fibre Technique:**
  - The temperature measurement of wires is performed in not just one location, but in a distributed manner using an optical fibre. To achieve this, a pulse of light is launched into the optical fibre and the backscattered radiation is observed.
    - Optical fibres are fabricated with high quality composite glass/quartz fibres.
      - Each fibre consists of a core (denser) and cladding (rarer).
    - When a signal in the form of light is directed at one end of the fibre at a suitable angle, it undergoes repeated total internal reflections along the length of the fibre and finally comes out at the other end.
      - Total internal reflection is complete reflection of a ray of light within a medium such as water or glass from the surrounding surfaces back into the medium.
    - Since light undergoes total internal reflection at each stage, there is no appreciable loss in the intensity of the light signal.

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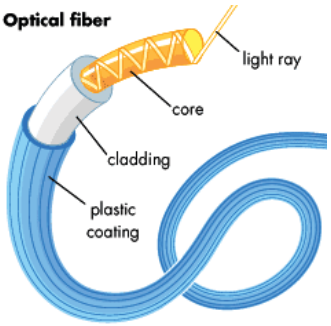
- The time of flight of the backscattered radiation provides an estimate of the distance from which the light is backscattered.



  - Backscattering (or backscatter) is the reflection of waves, particles, or signals back to the direction they came from.
  - This constitutes a distributed measurement as the pulse propagates all along the length of fibre.
  - This can go up to tens of kilometers.

➢ **Significance:**

- **Actual Temperature Measurements**:
  - The use of Raman thermometry technique allows the operators to get the results for actual temperature measurements over tens of kilometres.
- **Economic and Real-Time:**
  - Alternative methods of measuring the temperature of power cables include using a thermal camera which is cumbersome. The present method devised by the team is both economical and provides real-time information. Thermal cameras detect temperature by recognizing and capturing different levels of infrared light.

International Cooperation: ISRO

Why in News

Recently, **Indian Space Research Organisation (ISRO)** and **Japan Aerospace Exploration Agency (JAXA)** reviewed cooperation in **earth observation, lunar cooperation and satellite navigation.**

Key Points

➢ **About the Cooperation:**

- They also agreed to explore opportunities for cooperation in "space situational awareness and professional exchange programme".
- Both agencies signed an **Implementing Arrangement** for collaborative activities on **rice crop area** and **air quality monitoring** using satellite data.
- **India and Japan** are already working on a joint **lunar polar exploration (LUPEX) mission.**
  - LUPEX aims to **send a lander and rover to the Moon's south pole around 2024.**

➢ **Agreements with Other Countries:**

- **India and Italy** have decided to explore opportunities in **earth observation, space science and robotic and human exploration**.
- **India and Australia** signed an amendment to the MoU which will build on the **Comprehensive Strategic Partnership**.
  - Both countries are also in discussions for **Australia to host vital tracking infrastructure** to support the **Gaganyaan** manned space flight mission.

Few Achievements Through International Cooperation

➢ **Chandrayaan-1:**

- ISRO's maiden mission to Moon, the **Chandrayaan-1**, has been an exemplary example of international cooperation with its international payloads.
- It has also earned several national and international laurels and was instrumental in the **ISRO-NASA joint discovery of water molecules** on the moon surface, unattained by any of the previous missions of such nature.

➢ **Megha-Tropiques:**

- The **Indo-French joint satellite mission** called **MEGHA-TROPIQUES** was launched in 2011 for the study of the tropical atmosphere and climate related to aspects such as **monsoons, cyclones**, etc.

➢ **Saral:**

- The **Indo-French** joint mission, named **SARAL (Satellite for ALTIKA and ARGOS**) for studying the ocean from space using altimetry was successfully launched in 2013.

➢ **NISAR:**

- **ISRO and NASA** are realizing a joint satellite mission called **NISAR (NASA ISRO Synthetic Aperture Radar)** for earth science studies.
- The mission will observe Earth and measure its changing ecosystem and masses globally.

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- It is the world's most expensive imaging-satellite and the two space agencies intend to launch the satellite by 2022.

➢ **UNNATI:**

- ISRO has launched **capacity building programme** on **nano satellite development**, named as **UNNATI (UNispace Nanosatellite Assembly & Training by ISRO**) as an initiative of **UNISPACE+50** (the 50th Anniversary of the first United Nations conference on the exploration and peaceful uses of outer space).

➢ **TRISHNA:**

- ISRO and the French space agency **CNES** have partnered in developing advanced upgradation satellites like TRISHNA to **monitor the water cycle** to help in finding out proper ways to utilize it.

Equine Herpes Virus Outbreak in Europe

Why in News

Recently, there has been an outbreak of **Equine Herpes Virus (EHV-1) among horses** in Europe.

➢ So far seven countries have confirmed EHV-1 cases: Spain, Belgium, France, Germany, Italy, Sweden and Qatar.

Key Points

➢ **About Equine Herpes Virus (EHV):**

- Equine Herpes Virus is a common **DNA virus** that occurs in horse populations worldwide.
- EHV is a family of viruses which are named by numbers such as **EHV 1, 2, 3, 4 and 5.**
  - There are more viruses in this family, but **EHV 1, 3, and 4 pose the most serious health risks for domestic horses**.
- **Health Risks:**
  - **EHV1** can cause manifestations of disease in horses, including **respiratory disease, abortion and neonatal death**.
  - This strain can also cause **neurological problems**, leading to **paralysis** and in some cases, **death**. Horses that contract this virus can develop a **lack of coordination, weakness, loss of appetite and are unable to stand**.

➢ **Spread of EHV-1 Virus:**

- It is **contagious** and spread by **direct horse-to-horse contact** via the respiratory tract through nasal secretions.
- This virus **can also be spread indirectly** through **contact with physical objects** that are contaminated with the virus.

➢ **Equine Herpesvirus Myeloencephalopathy (EHM)** is another name for the **neurologic disease** associated with Equine Herpes Virus (EHV) infections.

➢ **Precautions and Treatment:**

- As the infection has a high transmission rate, **keeping a diseased horse in isolation** is required.
- Treatments may include **anti-inflammatory drugs.**

National Science Day 2021

Why in News

National Science Day (NSD) is celebrated every year **on 28th February** to commemorate the discovery of the **'Raman Effect'** by Sir Chandrasekhara Venkata Raman, for which he was awarded the **Nobel Prize** in 1930. The first NSD was celebrated in1987.

Key Points

➢ **Basic Objective:** To propagate the message of the importance of science and its application among the people.

➢ **2021 Theme:** 'Future of STI (Science, Technology and Innovations): Impacts on Education, Skills, and Work'.

➢ **Nodal Agency to Support Celebration: National Council for Science & Technology Communication (NCSTC)** of Ministry of Science and Technology.

➢ **Awards Conferred**:

- National S&T Communication Awards, **Augmenting Writing Skills for Articulating Research (AWSAR) awards**, and **SERB Women Excellence Awards** and Rajendra Prabhu Memorial Appreciation Shield for outstanding work in science media and journalism.
- The first-ever **National S&T Databases on S&T Awards** in India and Indian origin Academicians abroad, was released.

➢ **Augmenting Writing Skills for Articulating Research (AWSAR):**

- AWSAR is an initiative that aims to disseminate

Note:

Indian research stories among the masses in an easy to understand and interesting format.

- **Objectives:**
  - To encourage youth pursuing higher studies to submit at least one story/article based on their research work.
  - Foster, strengthen and create scientific temper through popular science writing and creating a culture of science communication/popularisation among the scholars.
  - Recognize the initiative and output of researchers on the specific aspects of natural, physical, mathematical and information sciences, applied science, technology, engineering, and multi-disciplinary science.
  - Conduct training Workshops for Early Career Researchers (PhD Scholars and PDFs) in popular science writing.

➢ **Some Recent Developments:**

- **National Research Foundation (NRF):** It is to be set-up as an autonomous body envisaged under the **New Education Policy (NEP) 2020.**
  - It will look after funding, mentoring, and building 'quality of research' in India. The NRF aims to fund researchers working across streams in India.
- Draft National Science, Technology and Innovation Policy (STIP 2020).

Raman Effect

➢ Raman is the inelastic scattering of a photon by molecules which are excited to higher vibrational or rotational energy levels. It is also called **Raman scattering.**

- In simpler words, it is a **change in the wavelength of light** that occurs when a light beam is deflected by molecules.
- When a beam of light traverses a dust-free, transparent sample of a chemical compound, a small fraction of the light emerges in directions other than that of the incident (incoming) beam.
- Most of this scattered light is of unchanged wavelength. A small part, however, has wavelengths different from that of the incident light and its presence is a result of the Raman Effect.

➢ The Raman effect forms the **basis for Raman spectroscopy** which is used by chemists and physicists to gain information about materials.

- Spectroscopy is the study of the interaction between matter and electromagnetic radiation.

National Cyber Security Strategy 2020

Why in News

A **National Cyber Security Strategy 2020** is being formulated by the Office of National Cyber Security Coordinator at the **National Security Council Secretariat**.

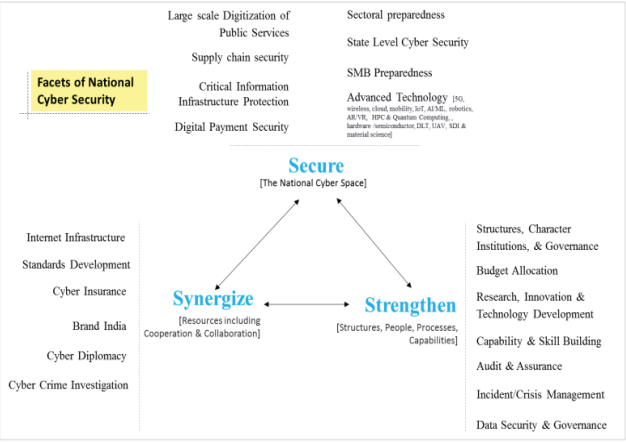
➢ **Cyber Security** is protecting cyber space including critical information infrastructure from attack, damage, misuse and economic espionage.

➢ The **National Security Council** (NSC) of India is a three-tiered organization that **oversees political, economic, energy and security issues of strategic concern**.

Key Points

➢ **National Cyber Security Strategy 2020:**

- **Aim**:
  - To **improve cyber awareness and cybersecurity** through more **stringent audits.** Empanelled cyber auditors will look more carefully at the security features of organisations than are legally necessary now.
- **About**:
  - There will be **table-top cyber crisis management exercises** regularly to reinforce the idea that cyber attacks can take place regularly.
  - It does call for a**n index of cyber preparedness**, and attendant monitoring of performance.
  - A **separate budget for cybersecurity** is suggested, as also to synergise the role and functions of various agencies with the requisite domain knowledge.



Note:

- **Need**:
  - **Cyber warfare offensives**:
    - The **United States is just one of many countries that have invested significant amounts of money in developing** not just defences against attack, but the **ability to mount damaging cyber warfare offensives**.
    - The countries which are believed to have the **most developed cyber warfare capabilities** are the **United States, China, Russia, Israel and the United Kingdom.**
  - **Increased Digital usage Post-Covid:**
    - Critical infrastructure is getting digitised in a very fast way — this includes **financial services, banks, power, manufacturing, nuclear power plants, etc.**
  - **For Protecting Critical Sectors:**
    - It is particularly significant given the increasing interconnectedness of sectors and proliferation of entry points into the internet, which could further grow with the adoption of **5G**.
    - There were **6.97 lakh** cyber security incidents reported in the **first eight months of 2020,** nearly equivalent to the previous four years combined, according to information reported to and tracked by **Indian Computer Emergency Response Team (CERT-In)**.
  - **Recent Cyber Attacks:**
    - There has been a steep rise in the use of resources like **malware** by a Chinese group called **Red Echo** to target "a large swathe" of India's power sector.
      - Red Echo used malware called **ShadowPad**, which involves the use of a backdoor to access servers.
    - Chinese hacker group known as **Stone Panda** had "identified gaps and vulnerabilities in the IT infrastructure and supply chain software of Bharat Biotech and the Serum Institute of India.
    - **SolarWinds hack**, impacted national critical infrastructure in the USA.
  - **For Government:**
    - A local, state or central government maintains a huge amount of confidential data related to country **(geographical, military strategic assets** etc.) and citizens.
  - **For Individuals**:
    - **Photos, videos** and other **personal information shared** by an individual on **social networking sites** can be inappropriately used by others, leading to serious and even life-threatening incidents.
  - **For Businesses:**
    - Companies have a lot of data and information on their systems. A cyber attack may lead to **loss of competitive information** (such as patents or original work)**, loss of employees/customers' private data** resulting into complete loss of public trust on the integrity of the organization.
- **Present Government Initiatives:**
  - **Cyber Surakshit Bharat Initiative.**
  - **Cyber Swachhta Kendra.**
  - **Online cybercrime reporting portal.**
  - **Indian Cyber Crime Coordination Centre (I4C).**
  - **National Critical Information Infrastructure Protection Centre (NCIIPC).**
  - **Information Technology Act, 2000.**
  - **National Cyber Policy, 2013.**

Global Bio-India-2021

Why in News

Recently, the **Union Minister for Health & Family Welfare** inaugurated the **second edition of Global Bio-India-2021** in New Delhi through virtual mode.

- It showcases the **strength and opportunities of India's biotechnology sector** at national level and to the global community.
- The minister unveiled the "**National Biotech Strategy**" and also inaugurated the **Virtual Exhibition of Global Bio-India** at the occasion.

Key Points

- **About**:
  - It is a **mega international congregation of Biotechnology,** with stakeholders including international bodies, regulatory bodies, Central and State Ministries, SMEs, large industries, bioclusters, research institutes, investors, and the startup ecosystem.
- **Aim**:

Note:

- It aims at **facilitating the recognition of India** as an **emerging Innovation Hub** and the bio-manufacturing hub globally.
  - India was ranked 48th in the **Global Innovation Index Report 2020**.

➢ **Objectives**:

- Bio- Partnering, Policy Discussions, CEO's plans for India and **connecting Indian Biotech ecosystem with international ecosystem** and creating platforms for **new idea evaluation and investments.**
- Showcase and identify **key biotechnological innovations, products, services, technologies** from national and international companies, start-ups and research institutes.
- **Attracting major contract projects** from international companies as well as major global venture funding into India.
  - According to the **World Bank's Ease of Doing Business Report 2020**, India is now ranked **1st among South-Asian countries** compared to 6th rank in 2014**.**

➢ **Organisers:**

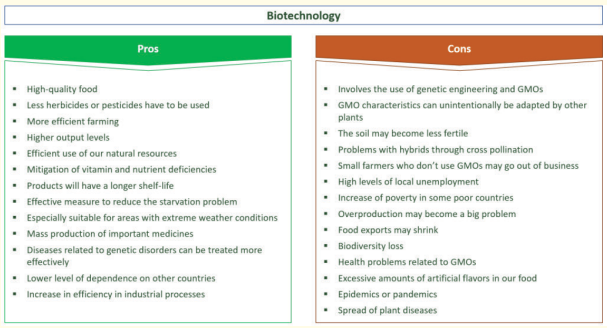
- Co-organised by the Department of Biotechnology, Ministry of Science & Technology along with its Public Sector Undertaking **Biotechnology Industry Research Assistance Council (BIRAC)** in partnership with industry association **Confederation of Indian Industry (CII)**, **Association of Biotechnology Led Enterprises** (ABLE) and **Invest India.**
  - **ABLE** is a **not-for-profit pan-India forum** that represents the Indian **Biotechnology** Sector.

Biotechnology

➢ Biotechnology is technology that **utilizes biological systems, living organisms or parts of this to develop or create different products.**

➢ Biotechnology **deals with industrial scale production** of biopharmaceuticals and biologicals using genetically modified microbes, fungi, plants and animals.

➢ The **applications** of biotechnology include **therapeutics, diagnostics, genetically modified crops for agriculture, processed food, bioremediation, waste treatment, and energy production.**


Biotechnology
Pros
High-quality food
Less herbicides or pesticides have to be used
More efficient farming
Higher output levels
Efficient use of our natural resources
Mitigation of vitamin and nutrient deficiencies
Products will have a longer shelf-life
Effective measure to reduce the starvation problem
Especially suitable for areas with extreme weather conditions
Mass production of important medicines
Diseases related to genetic disorders can be treated more effectively
Lower level of dependence on other countries
Increase in efficiency in industrial processes
Cons
Involves the use of genetic engineering and GMOs
GMO characteristics can unintentionally be adapted by other plants
The soil may become less fertile
Problems with hybrids through cross pollination
Small farmers who don't use GMOs may go out of business
High levels of local unemployment
Increase of poverty in some poor countries
Overproduction may become a big problem
Food exports may shrink
Biodiversity loss
Health problems related to GMOs
Excessive amounts of artificial flavors in our food
Epidemics or pandemics
Spread of plant diseases

Biotechnology Sector of India

➢ **About:**

- Biotechnology sector is recognized as one of the key drivers for contributing to India's USD **5 Trillion economy target by 2024.**
- Policy initiatives of the Government of India (GoI) such as the **Make in India** program are **aimed to develop India as a world-class Biotechnology and Bio-manufacturing hub**.
- India is among the **top-12 destinations** for biotechnology in the world, with approximately **3% share in the global Biotechnology industry.**
- Indian **Biotechnology industry's economy was valued at USD 70 billion** in 2020 and is expected to **grow to USD 150 billion by 2025.**

➢ **Biotechnology Parks:**

- The Department of Biotechnology has established **Biotechnology Parks**/Incubators across the country to translate research into products and services by providing necessary infrastructure support.
- These Biotechnology Parks offer facilities to Scientists, and **Small and Medium sized Enterprises (SMEs)** for technology incubation, technology demonstration and pilot plant studies for accelerated commercial development of Biotechnology.

➢ **Draft National Biotech Development Strategy 2020-24:**

- **About:**
  - It has called for **more engagement with startups and to leverage the public-private partnership (PPP) model** to take the industry to **USD150 billion by 2025.**
- **Aim**:
  - To build and nurture a vibrant startup, entrepreneurial, and industrial base, connecting academia and industry.
- **Focus**:
  - **Strengthening and nurturing of a strong basic research and innovation driven ecosystem** across research institutes and laboratories,

Note:

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both public and private sector, with complete engagement of startups, small industry, and large industry.

53rd PSLV Flight

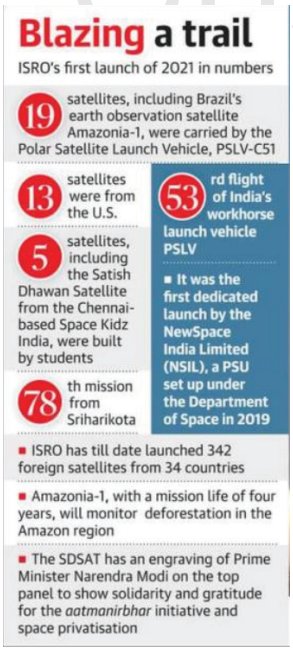
Why in News

Recently, the **53rd flight of PSLV-C51** marked the first dedicated mission for **New Space India Ltd (NSIL)**, the commercial arm of **Indian Space Research Organisation (ISRO).**

- In this flight, ISRO successfully launched **Brazil's optical earth observation satellite, Amazonia-1**, and **18 co-passenger satellites from India (5) and the USA (13)** from the **Satish Dhawan Space Centre (SHAR)** at Sriharikota.
- **SHAR, Sriharikota** is the **Spaceport of India.** It is responsible for providing Launch Base Infrastructure for the Indian Space Programme.

Key Points

- **Brazilian Satellite Amazonia 1:**
  - **About:**
    - Weighing 637 kg, belonging to the Brazilian National Institute for Space Research (INPE), was injected into its precise orbit of 758 km in a **sun-synchronous polar orbit** successfully.
  - **Objective:**
    - To strengthen the existing structure by providing **remote sensing data to users for monitoring deforestation in the Amazon region** and for analysis of **diversified agriculture across the Brazilian territory.**


Blazing a trail
ISRO's first launch of 2021 in numbers
19 satellites, including Brazil's earth observation satellite Amazonia-1, were carried by the Polar Satellite Launch Vehicle, PSLV-C51
13 satellites were from the U.S.
5 satellites, including the Satish Dhawan Satellite from the Chennai-based Space Kidz India, were built by students
78 th mission from Sriharikota
53 rd flight of India's workhorse launch vehicle PSLV
It was the first dedicated launch by the NewSpace India Limited (NSIL), a PSU set up under the Department of Space in 2019
ISRO has till date launched 342 foreign satellites from 34 countries
Amazonia-1, with a mission life of four years, will monitor deforestation in the Amazon region
The SDSAT has an engraving of Prime Minister Narendra Modi on the top panel to show solidarity and gratitude for the aatmanirbhar initiative and space privatisation

- **5 Indian Satellites:**
  - **UNITYsat (three satellites):**
    - They have been deployed to provide **Radio relay services.**
    - UNITYsat was designed and built as a joint development by Jeppiaar Institute of Technology, Sriperumpudur (JITsat), G. H. Raisoni College of Engineering, Nagpur (GHRCEsat) and Sri Shakthi Institute of Engineering and Technology, Coimbatore (Sri Shakthi Sat).
  - **SDSAT:**
    - Satish Dhawan Satellite (SDSAT) is a **nano satellite** intended to study the radiation levels/ space weather and demonstrate long range communication technologies.
    - It was built by Chennai-based **Space Kidz** (an organization dedicated to designing innovative concepts for students in the field of education).
    - SDSDAT also has an engraving of the Indian Prime Minister on the top panel of the satellite to show solidarity and gratitude for the **Atmanirbhar initiative** and space privatisation.
    - A Bhagavad Gita was also sent on-board in an SD card to give the scripture, which teaches oneness as the highest form of humanity, the highest honour.
  - **SindhuNetra:**
    - It was developed by students of Bengaluru-based PES University, which was awarded the Rs. 2.2 crore contract by the **Defence Research and Development Organisation (DRDO).**
    - This project will help in identifying suspicious ships through satellite imaging.
- **USA Satellites:**
  - 13 satellites were from the USA, one was a technology demonstration satellite **(SAI-1 Nano Connect 2)** and the remaining for 2-way communications and data relay **(SpaceBEEs)**.
- **Significance:**
  - **Provided Impetus to Indo-Brazil Relationship:**
    - Since the early 2000s, India and Brazil have signed cooperative instruments for exploration and peaceful uses of outer space, both at the government level (2004) and space agency level (between ISRO and Brazilian Space Agency AEB in 2002).
    - The new satellite (Amazonia-1) would open the door for multiple business, trade and governmental opportunities. Brazil has also requested India's support in procurement of material and systems for its launch vehicle programme.

Note:

- **Implemented New Space Reforms:**
  - Five Indian satellites were built under the **new space reforms** announced by the Government of India.
    - The approved reforms will **boost the private sector participation** in the entire range of space activities.
  - Four of the co-passenger satellites were signed for launch by **IN-SPACe,** ISRO's small satellites facilitation agency, and 14 were signed up through NSIL for commercial launch.
    - **IN-SPACe:** It is an independent nodal agency under the Department of Space (DOS) for allowing space activities and usage of DOS owned facilities by Non-Government private Entities (NGPEs) as well as to prioritise the launch manifest.
    - **NSIL:** It is the **commercial arm of Indian Space Research Organisation (ISRO)** with the primary responsibility of enabling Indian industries to take up high technology space related activities. It is also responsible for promotion and commercial exploitation of the products and services emanating from the Indian space.
- **Demonstrated Applications of Space Technology:**
  - Projects such as this demonstrate the extension of applications of Space Technology to different sectors and areas which brought 'ease of living', 'ease of environment' and 'ease of humanity' for common man.

Polar Satellite Launch Vehicle

- **About:**
  - Polar Satellite Launch Vehicle (PSLV) is the **third generation launch vehicle of India.**
  - It is a **four-staged launch vehicle** with first and third stages using solid rocket motors and second and fourth stages using liquid rocket engines.
  - It is the **first Indian launch vehicle to be equipped with liquid stages.**
- **Capacity:**
  - Initially, PSLV had a carrying capacity of 850 kg but has been enhanced to 1.9 tonnes.
- **Accomplishments**:
  - The PSLV has helped take payloads into almost all the orbits in space including **Geo-Stationary Transfer Orbit (GTO),** the Moon, Mars and would soon be launching a mission to the Sun.
  - Between 1994 and 2019, the PSLV launched 50 Indian satellites and 222 foreign satellites for over 70 international customers from 20 countries.
  - It has a history of successful launches of payloads that include **Chandrayaan-1**, **Mars Orbiter Mission (MOM)** and the space recovery mission, etc.
  - The PSLV has failed only twice in its history — the maiden flight of the PSLV D1 in 1993 and the PSLV C-39 in 2017.

Swachhta Saarthi Fellowship: Waste to Wealth Mission

Why in News

The **Office of the Principal Scientific Adviser** to the Government of India under its "**Waste to Wealth" Mission** launched the "**Swachhta Saarthi Fellowship**".

Key Points

- **About the Swachhta Saarthi Fellowship:**
  - **Objectives:** To **recognize students, community workers/self-help groups, and municipal/sanitary workers** who are engaged in tackling the enormous challenge of waste management, scientifically and sustainably.
  - **Three Categories of Awards under the Fellowships:**
    - **Category-A:** Open to **School students from 9th to 12th standards** engaged in waste management community work.
    - **Category-B:** Open to **College students (UG, PG, Research students)** engaged in waste management community work.
    - **Category-C:** Open to **Citizens working in the community and through SHGs, municipal or sanitary workers** working beyond specifications of their job requirements/descriptions.
- **Waste to Wealth Mission:**
  - This mission will identify, develop, and deploy technologies to treat waste to generate energy, recycle materials, and extract worth.

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- The Waste to Wealth Mission is **one of the nine national missions** of the **Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC)**.
- The mission will **assist and augment the Swachh Bharat and Smart Cities projects** to **create circular economic models** that are financially viable for waste management to streamline waste handling in the country.

E-waste to Wealth: New Technology (IIT Delhi)

- Indian Institute of Technology, Delhi has developed **a zero-emission technology** to manage and recycle e-waste to wealth.
- The new methodology uses e-waste as an "**Urban Mine**" for **metal recovery and energy production.**
  - The e-waste is **shredded and pyrolyzed** to yield liquid and gaseous fuels, leaving behind a metal-rich solid fraction.
  - On further separation, the leftover solid residue yields a 90-95% pure metal mixture and some carbonaceous materials.
  - The carbonaceous material is further converted to aerogel for oil spillage cleaning, dye removal, carbon dioxide capture, and use in supercapacitors.
- This technology will cater to the needs of "**Smart Cities," "Swachh Bharat Abhiyan," and "Atmanirbhar Bharat" initiatives**.

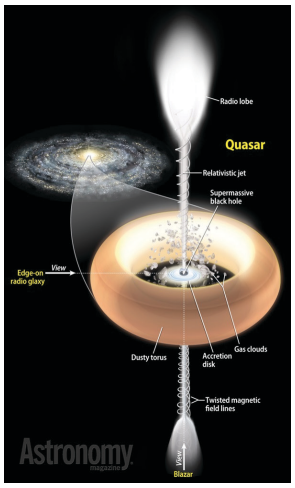
Most Distant Quasar P172+18

Why in News

Recently, an international team of astronomers has discovered the most distant '**Radio-Loud' Quasar** with the help of **European Southern Observatory's Very Large Telescope (ESO's VLT).**

Key Points

- **Quasars**:
  - Quasars are very **luminous objects** in faraway galaxies that **emit jets at radio frequencies.**
  - The word quasar is short for **"quasi-stellar radio source"**.
    - The name, which means star-like emitters of radio waves, was given in the 1960s when quasars were first detected.
    - The name is retained today, even though astronomers now know most quasars are faint radio emitters. In addition to radio waves and visible light, quasars also emit ultraviolet rays, infrared waves, X-rays, and gamma-rays.



  - Most quasars are larger than our solar system. A quasar is **approximately 1 kiloparsec in width.**
  - They are **only found in galaxies that have supermassive blackholes** which power these bright discs.
    - **Black hole** refers to a point in space where **matter is so compressed** as to create a **gravity field** from which **even light cannot escape.**
  - Most **active galaxies have a supermassive black hole** at the centre which sucks in surrounding objects.
  - Quasars are **formed by the energy emitted by materials swirling around a blackhole** right before being sucked into it.
  - They are further categorised into the **"radio-loud"** and the **"radio-quiet"** classes.
    - **Radio-loud:**
      - They are with powerful jets that are **strong sources of radio-wavelength emission.**
      - These make up about **10%** of the overall quasar population.
    - **Radio-quiet:**
      - They are those quasars lacking powerful jets, with relatively **weaker radio emission** than the radio-loud population.
      - The majority of quasars (about **90%**) are radio-quiet.
- **Recently Discovered Quasar/P172+18:**
  - Named P172+18, the quasar emitted wavelengths which had a **redshift** of 6.8.
    - It took **13 billion years** for the quasar's light to reach earth.
  - This particular quasar appears to the scientists as it was when the universe was just around **780 million years old.**

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- The glowing disc around a blackhole is **300 million times more massive than our Sun**.
- It is also **one of the fastest accreting quasars**, which means it is accumulating objects from the galaxy at an enormous speed.
- Only **three other 'radio-loud' sources with redshift greater than six have been discovered** so far and the **most distant one had a redshift of 6.18.**
  - The **higher the redshift** of the radio wavelength, the **farther away is the source.**

➢ **Inference**:
- The **blackhole at its centre is consuming from its galaxy** at a stunning rate.

➢ **Significance**:
- A detailed study of these 'radio-loud' super bright objects can lead astronomers to **understanding how the supermassive blackholes in their core grew to be as big** so rapidly since the Big Bang.
- It also **holds clues about the ancient star systems and astronomical bodies.**

➢ **About the ESO's VLT:**
- The **Very Large Telescope** used to observe the **P172+18** is located at Paranal Observatory in the **Atacama Desert.**
  - The four Unit Telescopes boast 8.2-meter (27 feet) mirrors.
  - Just one of these instruments **can spot objects that are 4 billion times fainter than what can be seen with the unaided eye**.
  - According to the **European Southern Observatory**, the **Very Large Telescope** is the **world's most advanced optical telescope.**

Redshift

➢ Gravitational redshift **occurs as particles of light (photons) climb out of a gravitational well like a black hole** and the light's wavelength gets drawn out. This **shifts the wavelength to the red part** of the light spectrum - hence **"redshift".**

➢ In order **to escape intense gravity, particles of light (photons) must expend energy.**

➢ However, at the same time, these photons **must travel at a constant speed** - the speed of light.

➢ Therefore, the **photons can't lose energy by slowing down but must expend** it in another way.

➢ This lost energy **manifests itself as a shift towards the red end of the light spectrum**.

International Lunar Research Station: Russia and China

Why in News

China and Russia have agreed to build a **International Lunar Research Station (ILRS)**, possibly on the moon's surface, marking the start of a new era in space cooperation between the two countries.

➢ Russia is a part of **International Space Station** which is a **habitable artificial satellite** - the single largest man-made structure in low earth orbit.

Key Points

➢ **International Lunar Research Station (ILRS)**:
- **About:**
  - The ILRS is a comprehensive scientific experiment base with the capability of **long-term autonomous operation**.
  - The station would be **built on the lunar surface and/or on the lunar orbit** that would **carry out scientific research activities** such as the lunar exploration and utilization, lunar-based observation, basic scientific experiment and technical verification.
- **Principle**:
  - Russia and China will adhere to the principle of **co-consultation, joint construction, and shared benefits.**
  - They will facilitate **extensive cooperation** in the ILRS, **open to all interested countries** and international partners.
- **Significance:**
  - ILRS will strengthen scientific research exchanges, and promote humanity's exploration and use of outer space for peaceful purposes.

➢ **Other Programmes Related to Moon:**
- **NASA's Artemis:** Earlier, in 2020, **National Aeronautics and Space Administration's (NASA)** published the outline for its **Artemis program**, which plans to **send the next man and first woman to the lunar surface** by the year 2024.
  - The **Gateway is an outpost around the Moon** to support human and scientific exploration in deep space.

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- **UAE's Rashid**:
  - The United Arab Emirates (UAE) has decided to send an unmanned spacecraft named Rashid to the moon in 2024.
- **China's Chang'e-4** and **Chang'e-5** Missions :
  - Chang'e-4 is the first probe ever to explore the far side of the moon by China.
  - Chang'e-5 mission will seek to collect lunar material to help scientists understand more about the moon's origins and formation.

Moon

- **Facts about Moon:**
  - The Moon is Earth's **only natural satellite** and the fifth largest moon in the solar system.
  - The Moon's presence **helps stabilize our planet's wobble, which helps stabilize our climate.**
  - The Moon's distance from Earth is about **3,85,000 km.**
  - The Moon has a very **thin atmosphere** called an exosphere.
  - The Moon's **entire surface is cratered and pitted** from impacts.
  - The **Earth and Moon are tidally-locked**. Their rotations are so in sync we only see one side of the Moon all the time.
- **Reasons for Studying Moon:**
  - **Understanding Early Earth**:
    - As it is made of remnants of Earth, **clues about the composition of an early Earth** could very well be hidden between layers of Moon dust.
    - Further, the Moon holds potential **clues to how life began on Earth.**
  - **To Understand Seismic Activity on Earth:**
    - Studying **Moonquakes** can help us understand what seismic activity on Earth could have been like during times with less liquid water on the surface, such as during major ice ages or during the Earth's early history, when the surface was much too hot to preserve liquid oceans.
  - **Composition of Earth's Atmosphere:**
    - By measuring **Earth's glow from the Moon**, scientists can accurately estimate how much Earth itself shines, and even the composition of Earth's atmosphere.
  - **To Understand Tides, Seasons and Climate:**
    - Measuring the **mass, size and orbital properties of the Moon is essential for predicting** rhythms of **tides and seasons.**
    - Studying these **tidal and orbital interactions** between Earth and the Moon is extremely important for understanding possible **effects on Earth's climate.**

France's First Space Military Exercise: AsterX

Why in News

Amid the growing competition among the world powers in the field of space, France has begun its **first space military exercises** to test its ability to defend its satellites.

Key Points

- **About the Exercise:**
  - The exercise drills are codenamed "**AsterX**" to commemorate the first French satellite **Asterix** from 1965.
  - The exercises are part of France's strategy to become the world's **third-largest space power**, after the USA and China.
  - These space military exercises are the first ever attempt not only for the French army but also for Europe.
  - Moreover, France has planned to develop **anti-satellite laser weapons** and to strengthen surveillance capabilities to close the gap with rivals; China and Russia.
  - **Aim of the Exercise:**
    - To monitor a potentially dangerous space object as well as threats to its own satellite from another foreign power possessing a considerable space force.
  - **Participants:**
    - Along with France, the new **US Space Force and German space agencies** are taking part in the exercises.
- **Background:**
  - In 2018, **Olymp-K**, a Russian satellite attempted to intercept transmissions from the **Athena-Fidus**

Note:

satellite which is used by both Italian and French armies for secure communications. This was **termed as an act of 'espionage'.**

- In 2020, the United States also **accused Russia** of having "conducted a non-destructive test" of an anti-satellite weapon from space.

- In 2019, France announced its **Commandement de l'Espace (CdE)** (French Space Command).
  - It is set to have 500 personnel by 2025.

➢ **Similar Initiatives of India:**

- **IndSpaceEx:** India's first ever simulated space warfare exercise.
- **Mission Shakti**: An Anti-Satellite (ASAT) Missile Test.

Genome Mapping in Indian Ocean

Why in News

National Institute of Oceanography (NIO) is going to launch the **first-of-its-kind** project of **Genome Mapping** in the **Indian Ocean.**

➢ Indian Ocean is the **third largest water body in the world**, covering about **20% of the Earth's water surface.**

Key Points

➢ **Aim:**

- To **gather samples** for **genome mapping of microorganisms** in the Indian Ocean.
- To **understand the biochemistry** and the **response of the ocean to climate change, nutrient stress** and **increasing pollution.**

➢ **Project Cost & Duration:**

- Rs. **25 crore** and will take **three years** to complete.

➢ **About:**

- A team of scientists and researchers from the NIO on board its research vessel **Sindhu Sadhana** will spend 90 days traversing the course of over **10,000 nautical miles** in the Indian Ocean on the research project to **reveal the internal working of the body of the ocean at a cellular level.**
  - They will course the Indian Ocean **from India's east coast,** Australia, Port Louis in Mauritius and up **to the border of Pakistan, off India's west coast.**

➢ **Genome Collection:**

- The researchers will **collect samples** from various stretches of the ocean at an **average depth of about 5 km**.
- Just like **gene mapping** is carried out on blood samples collected from humans, the scientists will map these **in the bacteria, microbes found in the ocean.**
- The mapping of the **Deoxyribose Nucleic Acid (DNA)** and **Ribonucleic Acid (RNA)** will show the nutrients present in them, and also those lacking in different parts of the ocean.

➢ **Studying Trace Elements**:

- Trace metals like **cadmium or copper** are supplied to oceans via continental run-offs, atmospheric deposition, hydrothermal activities and continental shelf interaction.
  - They are **essential for ocean productivity.**
- It is important to understand the **interactions of trace metals with marine biota** "for having a holistic understanding about nutrient cycling and productivity of the oceans".
- Apart from their reactions on marine life, **isotopic forms of trace metals can be utilised to track the movement of water masses** responsible for ocean circulation and as tools to study the biological, geochemical and ecosystem processes and food web analyse.
- The NIO's project is expected **to generate new information about trace metals from underexplored regions** of the Indian Ocean.

➢ **Benefits**:

- **Understanding Ecosystem:**
  - It will help scientists understand the internal **working of the ecosystem** of the Indian Ocean.

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- **Understanding Factors Causing Change:**
  - The research will enable scientists to identify the **factors controlling the changes in RNA, DNA in the oceans**, and various stressors impacting them.
- **Identifying Mineral Concentration:**
  - The ocean has several **micronutrients** like nitrates, sulphates and silicates, **minerals** like iron ore and zinc, and **trace metals** like cadmium or copper.
  - The genome mapping will show the **presence of which these microbes have adapted to**, in addition to their reaction to atmospheric carbon dioxide.
  - This will help in **identifying which part of the ocean has a greater concentration of which mineral or element.**
  - Scientists will then use these as tracers to tackle the causative factors for excess or lack of a certain mineral or element and **suggest possible solutions for their mitigation.**
- **Human Benefit:**
  - The **large pool of RNA, DNA library of the oceans** will be utilised for using the Indian Ocean to **human benefit in the future.**
- **Increased Biotechnology Application:**
  - Genome mapping will enable an increase in the **growing number of commercial biotechnology applications**, extending from multiple anticancer treatments to cosmetics and industrial enzymes, to antiviral molecules.
- **Optimization of Conservation Efforts:**
  - Exploration of the ocean at a genetic level will result in **new insights into taxonomy** and adaptive capacity that can help optimize conservation efforts.

Genome

- A genome is the complete set of DNA (or RNA in RNA viruses) of an organism.
- Each genome **contains all of the information needed to build and maintain that organism**.
- In humans, a copy of the entire genome contains more than 3 billion DNA base pairs.

Genome Mapping

- It describes the methods used to identify the locus of a gene and the **distances between genes**. Gene mapping can also describe the distances between different sites within a gene.
- Taking inspiration from the Human Genome Project, the Department of Biotechnology (DBT) initiated the ambitious **"Genome India Project" (GIP)** in January 2020. The GIP aims to collect 10,000 genetic samples from citizens across India, to build a reference genome.

National Institute of Oceanography

- **About**:
  - It is a **multi-disciplinary oceanographic research institute** and is one of the constituent laboratories of the **Council of Scientific & Industrial Research (CSIR)**, New Delhi.
- **Headquarter and Other Centres:**
  - Its **headquarters is at Dona Paula, Goa** with regional centres at Kochi (Kerala), Mumbai (Maharashtra) and Visakhapatnam (Andhra Pradesh).
- **Established**:
  - It was established on **1st January 1966** following the **International Indian Ocean Expedition (IIOE)** in the 1960s.

Asteroid 2001 FO32

Why in News

The **National Aeronautics and Space Administration (NASA)** has predicted that the **asteroid '2001 FO32' is the largest to pass by Earth in 2021**. It will be at its closest on 21st March.

- It will provide a rare opportunity for astronomers to get a good look at a rocky relic that formed at the dawn of our solar system.

Key Points

- **About the 2001 FO32 Asteroid:**
  - **Discovery**: It was discovered 20 years ago and ever since the scientists have been tracking its orbital path around the Sun very accurately.
    - It was **discovered in March 2001 by the Lincoln Near-Earth Asteroid Research (LINEAR) program** in Socorro, New Mexico.
    - **1998 OR2 was the last notably large asteroid** that passed close to earth on 29th April, 2020.

Note:

While 2001 FO32 is somewhat smaller than 1998 OR2, it will be **three times nearer to Earth.**

- **Orbit**: It is in a highly **eccentric orbit around the Sun.** It **completes one orbit every 810 days** (about 2¼ years). The orbit is tilted 39° to Earth's orbital plane.
  - This orbit takes the asteroid closer to the Sun than Mercury, and twice as far from the Sun as Mars.
- **Speed:** The asteroid will pass by at about 1,24,000 kph. It is faster than the speed at which most asteroids encounter Earth.
  - The reason for the asteroid's unusual speed is its close approach to the earth.
- **No Threat of Collision**:
  - The near-Earth asteroid will make its closest approach at a distance of about 2 million kilometers or 5 1/4 times the distance from Earth to the Moon.
    - The distance is close in astronomical terms, that's why it has been designated a **"potentially hazardous asteroid"**.
    - There is no threat of a collision with our planet now or for centuries to come.
- **Next Close Approach**: The asteroid will not come this close to Earth again until 2052, when it will pass by at about seven lunar distances, or 2.8 million km.

➢ **Significance**:

- It will provide an opportunity for astronomers to get a more precise understanding of the asteroid's size and albedo (i.e. how bright, or reflective, its surface is), and a rough idea of its composition.
- When sunlight hits an asteroid's surface, minerals in the rock absorb some wavelengths while reflecting others. By studying the spectrum of light reflecting off the surface, astronomers can measure the chemical "fingerprints" of the minerals on the surface of the asteroid.

➢ **Other Asteroids Seen in News:**

- **Asteroid 2020 ND**
- **163348 (2002 NN4)**
- **Asteroid 2018VP1**
- **Asteroid 16 Psyche**
- **Asteroid Bennu**

Asteroids

➢ Asteroids orbit the Sun and are small bodies in the solar system.

➢ They are made up of metals and rocks.

➢ They tend to have shorter and elliptical orbits.

➢ They do not produce a coma or tail atmosphere.

➢ The asteroid belt is a torus-shaped region in the Solar System, located roughly between the orbits of the planets Jupiter and Mars.

Classification of Asteroids

➢ **Main Asteroid Belt**: The majority of known asteroids orbit within the **asteroid belt** between Mars and Jupiter.

➢ **Trojans**: These asteroids share an orbit with a larger planet, but do not collide with it because they gather around two special places in the orbit (called the L4 and L5 Lagrangian points). There, the gravitational pull from the sun and the planet are balanced.

- Lagrange Points are positions in space where the gravitational forces of a two body system like the Sun and the Earth produce enhanced regions of attraction and repulsion. These can be used by spacecraft to reduce fuel consumption needed to remain in position.

➢ **Near-Earth Asteroids**: These objects have orbits that pass close by that of Earth. Asteroids that actually cross Earth's orbital path are known as Earth-crossers.

Potentially Hazardous Asteroid

➢ It means that an asteroid has the potential to make threatening close approaches to the Earth.

■■■

Note:

Environment and Ecology

Highlights

- *Seabuckthorn Plantation in the Cold Desert*
- *Dumping Inert Waste in Asola Bhatti Wildlife Sanctuary*
- *Appeal to Resume Mining in Aravalli Hills*
- *Right to Repair: European Union*
- *Black-Browed Babbler Rediscovered*
- *NDC Synthesis Report: UNFCCC*
- *Similipal Biosphere Reserve: Odisha*
- *WWF Conservation Drive on World Wildlife Day*
- *Whale Shark*
- *Pench Tiger Reserve: Maharashtra*
- *CERA Week Global Energy and Environment Leadership Award*
- *Independent Environment Regulator*

Seabuckthorn Plantation in the Cold Desert

Why in News

The Himachal Pradesh government has decided to start planting seabuckthorn in the cold desert areas of the state.

Key Points

➢ **About Seabuckthorn:**

- ❍ It's a shrub which produces an orange-yellow coloured edible berry.
- ❍ In India, it is found above the tree line in the Himalayan region, generally in dry areas such as the cold deserts of Ladakh and Spiti.
- ❍ In Himachal Pradesh, it is locally called chharma and grows in the wild in Lahaul and Spiti and parts of Kinnaur.
- ❍ A major part is covered by this plant in Himachal Pradesh, Ladakh, Uttarakhand, Sikkim and Arunachal Pradesh.**Ecological, Medicinal and Economical benefits.**
- ❍ The Seabuckthorn Plantation has many **Ecological Benefits:**
  - Seabuckthorn is a soil-binding plant which prevents soil-erosion, checks siltation in rivers and helps preserve floral biodiversity.
  - In the Lahaul valley, where willow trees are dying in large numbers due to pest attack, this hardy shrub is a good alternative for protecting the local ecology.

  - Grows well in dry regions and becomes much more important especially in the light of reduced water flow from Himalayan glaciers.
- ❍ **Medicinal Benefits:**
  - As a folk medicine, seabuckthorn has been widely used for treating stomach, heart and skin problems.
  - Its fruit and leaves are rich in vitamins, carotenoids and omega fatty acids and it can help troops in acclimatising to high-altitude.
  - In the last few decades, scientific research worldwide has backed many of its traditional uses.
- ❍ **Economical Benefits:**
  - Seabuckthorn also has commercial value, as it is used in making juices, jams, nutritional capsules etc.
  - It is an important source of fuelwood and fodder.
  - However, wild Seabuckthorn cannot sustainably supply raw material to the industry, and the plant needs to be cultivated on a large scale as is being done in China.

Note:

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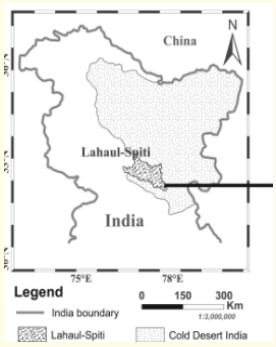
Cold Desert in India

- The Cold Desert of India is situated in the Himalayas and stretches from Ladakh in the north to Kinnaur (in the state of Himachal Pradesh) in the south.
- The region has harsh climatic conditions such as very low rainfall and very high elevation (ranging from 3000 – 5000m Above Sea Level)] that adds to the coldness in its environment.
- Blizzards, snowstorms and avalanches are common.
- The soil is not very fertile and the climatic conditions allow very short growing seasons making it a bare landscape.
- Water resources are minimal and comprise glacier-fed streams.



Tree Line

- The tree line is the edge of the habitat at which trees are capable of growing. It is found at high elevations and high latitudes.
- Beyond the tree line, trees cannot tolerate the environmental conditions (usually cold temperatures, extreme snowpack, or associated lack of available moisture).

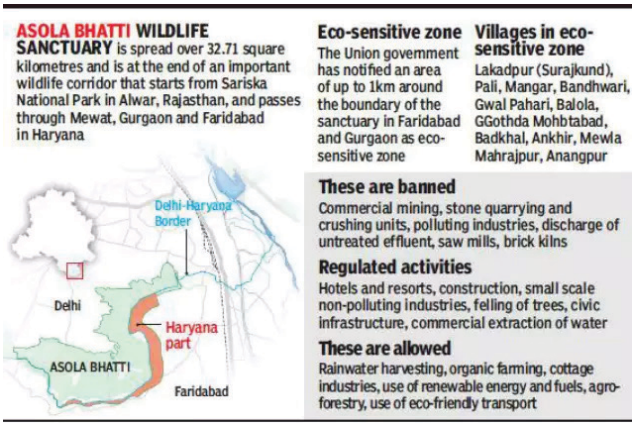
Dumping Inert Waste in Asola Bhatti Wildlife Sanctuary

Why in News

The Supreme Court-mandated **Ridge Management Board** has decided to constitute an expert committee to look into the proposal of dumping **inert (non-reactive) waste** in the mines of **Asola Bhatti Wildlife Sanctuary** (Delhi).

Key Points

- **Inert Waste:**
  - Inert waste is waste which is **neither biologically nor chemically reactive** and is waste which **will not decompose** or decompose very slowly.
  - Inert waste includes, but is not limited to: **construction and demolition material** such as metal, wood, bricks, masonry and cement concrete; **asphalt concrete**; **metal**; **tree branches**; bottom **ash from coal fired boilers**; and waste **coal fines** from air pollution control equipment.
  - These wastes **usually don't pose a threat to the environment, or the health of animals or other people** and will **not endanger the quality of watercourses.**
  - However, when there is a large amount of this type of waste, it can become an issue as it **begins to take up a lot of space.**
- **Asola Bhatti Wildlife Sanctuary:**
  - Asola-Bhatti Wildlife Sanctuary covering 32.71 sq km area lies on the Southern Delhi Ridge of **Aravalli hill range,** one of the oldest mountain systems of the world, on Delhi-Haryana border.
  - An area of 1km around the Asola Bhatti Wildlife Sanctuary in Gurugram and Faridabad is an **Eco-sensitive zone**.
    - Activities such as commercial mining, setting up of industries, and establishment of major hydro-electric projects are prohibited.
  - The Asola wildlife sanctuary has **both floral and faunal diversity** in form of
    - Wide variety of trees, shrubs, herbs and grasses.
    - Large numbers of mammals, reptiles, amphibians, butterflies and dragonflies.
  - Sanctuary comprises around 200 species of **resident and migratory birds**.
  - Wildlife habitats inside the sanctuary act as **a water recharge zone** for Delhi, Faridabad and Gurugram.


ASOLA BHATTI WILDLIFE SANCTUARY is spread over 32.71 square kilometres and is at the end of an important wildlife corridor that starts from Sariska National Park in Alwar, Rajasthan, and passes through Mewat, Gurgaon and Faridabad in Haryana
Eco-sensitive zone
The Union government has notified an area of up to 1km around the boundary of the sanctuary in Faridabad and Gurgaon as eco-sensitive zone
Villages in eco-sensitive zone
Lakadpur (Surajkund), Pali, Mangar, Bandhwari, Gwal Pahari, Balola, GGothda Mohbtabad, Badkhal, Ankhir, Mewla Mahrajpur, Anangpur
Delhi-Haryana Border
Delhi
Haryana part
ASOLA BHATTI
Faridabad
These are banned
Commercial mining, stone quarrying and crushing units, polluting industries, discharge of untreated effluent, saw mills, brick kilns
Regulated activities
Hotels and resorts, construction, small scale non-polluting industries, felling of trees, civic infrastructure, commercial extraction of water
These are allowed
Rainwater harvesting, organic farming, cottage industries, use of renewable energy and fuels, agro-forestry, use of eco-friendly transport

- **Ridge Management Board:**
  - **Background:** The **Supreme Court mandated** the Delhi Government to constitute a **Ridge Man-**

Note:

agement Board for **protection of the Delhi Ridge** through their orders in **the M.C. Mehta case 1987**.

- The **Delhi Ridge is the northern extension of the Aravalli Range** covering a distance of about 35km.
- The Delhi Ridge acts as the **green lungs of the capital** and, through various government orders over the years, all construction has been banned in the Ridge in an effort to preserve it.

- **Date of Establishment:** 6th October 1995.
- **Members:** The Chairman of the board is Chief Secretary of Delhi and Head of the Forest Department of Delhi Government is its Member Secretary.
  - The Board also has members from the **Non-governmental Organizations (NGOs)**.

Appeal to Resume Mining in Aravalli Hills

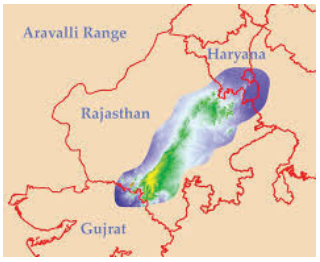
Why in News

Recently, the Haryana government has appealed to the **Supreme Court** to permit it to resume mining in the Aravalli Hills on the grounds that the pandemic had grounded the State's economy to a halt.

Key Points

➢ **About the Aravalli Range:**

- **Location:**
  - They stretch for a distance of about 720 km from Himmatnagar in Gujarat to Delhi, spanning Haryana, Rajasthan, Gujarat, and Delhi.



- **Formation:**
  - The Aravallis date back to millions of years when a pre-Indian subcontinent collided with the mainland Eurasian Plate.
- **Age:**
  - **Carbon dating** has shown that copper and other metals mined in the ranges date back to at least the 5th century BC.
- **Characteristics:**
  - The Aravallis of Northwestern India, one of the **oldest fold mountains of the world**, now form **residual mountains** with an elevation of 300m to 900m.
    - **Guru Shikhar Peak** on Mount Abu is the highest peak in the Aravalli Range (1,722 m).
  - It has been formed primarily of folded crust, when two convergent plates move towards each other by the process called **orogenic movement.**
- **Extension:**
  - The mountains are **divided into two main ranges** – the Sambhar Sirohi Range and the Sambhar Khetri Range in Rajasthan, where their extension is about 560 km.
  - The hidden limb of the Aravallis that extends from Delhi to Haridwar creates a divide between the drainage of rivers of the Ganga and the Indus.

➢ **Their Significance:**

- **Checks Desertification:**
  - The Aravallis act as a barrier between the fertile plains in the east and the sandy desert in the west.
  - Historically, it is said that the Aravalli range checked the spread of the **Thar desert** towards the Indo-Gangetic plains, serving as a catchment of rivers and plains.
- **Rich in Biodiversity:**
  - Provides habitat to 300 native plant species, 120 bird species and many exclusive animals like the jackal and mongoose.
- **Impacts Climate:**
  - Aravallis have an impact upon the climate of northwest India and beyond.
  - During monsoons, it provides a barrier and monsoon clouds move eastwards towards Shimla and Nainital, thus helping nurture the sub-Himalayan rivers and feeding the north Indian plains.
  - In the winter months, it protects the fertile alluvial river valleys from the cold westerly winds from Central Asia.
- **Recharges Groundwater:**
  - Aravallis also functions as a groundwater recharge zone for the regions around that absorb rainwater and revive the groundwater level.

Note:

- **Checks Pollution:**
  - This range is considered the **"lungs" for the polluted air of Delhi–National Capital Region (NCR).**
  - For Haryana, having the lowest forest cover at around 3.59% of the total forest cover in India, the Aravalli range is the only saving grace, providing the major portion of its forest cover (2017 Report).

➢ **Threats:**

- The Aravalli hills are **an ecologically sensitive zone** but have for years borne the brunt of quarrying and environmental degradation.
- A 2018 report by a Supreme Court-appointed **Central Empowered Committee (CEC)** found out that **25% of the Aravalli range has been lost due to illegal mining** in Rajasthan since 1967-68.
- The **consequences** of the mining has been a **destruction of aquifers and deforestation.** Many **rivers originating in the Aravalli like Banas, Luni, Sahibi and Sakhi**, are now dead.

➢ **Steps Taken:**

- **Mining in the Aravalli region has been banned since 2002** under the Supreme Court orders, unless expressly permitted by the Union Environment Ministry. However, mining continues illegally.
- The **green wall** is being planned from Porbandar to Panipat which will help in restoring degraded land through afforestation along the Aravali hill range.
- Residents along with volunteers from iamgurgaon, a citizen action group involved in the conservation of the Aravallis, were assisted by ecologists to create a self-sustaining Aravalli. This society driven model could be more effective to combat the degradation.

Right to Repair: European Union

Why in News

Companies that sell refrigerators, washers, hair dryers or tele-visions in the **European Union** (EU) will need to ensure that those appliances can be **repaired for up to 10 years**.

➢ The **"Right to Repair,"** as it is sometimes called, came into force across the 27-nation from March 2021.

Key Points

➢ **About:**

- The Right to Repair electronics refers to government **legislation that is intended to allow consumers the ability to repair and modify their own consumer electronic devices**, where otherwise the manufacturer of such devices require the consumer to use only their offered services.
- Idea of Right to Repair originally **originated from the USA** where the **Motor Vehicle Owners' Right to Repair Act 2012**, required the manufacturers to provide the necessary documents and information to allow anyone to repair their vehicles.

➢ **New Rules:**

- Under the new EU rules, **manufacturers will have to ensure parts are available for up to a decade**, though some will only be provided to professional repair companies to ensure they are installed correctly.
- New devices will also have to come with **repair manuals** and be made in such a way that they can be dismantled using conventional tools when they really can't be fixed anymore, to **improve recycling**.

➢ **E-Waste Generation in Europe:**

- As per the **Global E-Waste Monitor 2020,** Europeans produce more than **16 kilograms** (kg) of electrical waste per person every year.
  - Asia and Africa were much lower: **5.6 and 2.5 kg** respectively.
  - **Global E-Waste Monitor:** It is a collaboration of the **Global E-waste Statistics Partnership** (GESP), formed by **United Nation** University (UNU), the **International Telecommunication Union** (ITU), and the **International Solid Waste Association** (ISWA), in close collaboration with the **United Nation Environment Programme (UNEP)**.
- About half of that junk is due to broken household appliances, and the **EU recycles only about 40% of it**, leaving behind huge amounts of potentially hazardous material.

➢ **Significance**:

- It will help **reduce** the vast mountain of **electrical waste (e-waste)** that piles up each year on the continent.
- It will **save consumers money.**
- It will **contribute to circular economy objectives** by improving the life span, maintenance, re-use,

Note:

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upgrade, recyclability and waste handling of appliances.

- It would tackle **two manufacturing trends**:
  - Cavalier attitude towards planned obsolescence.
  - Tendency on the part of manufacturers to control the repair and maintenance network.

➢ **Problem with Repair of Modern Appliances:**

- **Need Special Tools:**
  - Modern appliances are often glued or riveted together, if you need specialist tools or have to break open the device, then you can't repair it.
- **Lack of Spare Parts:**
  - Lack of spare parts is another problem, campaigners say. Sometimes a single broken tooth on a tiny plastic sprocket can be challenging work.

➢ **Concerns For Manufacturers:**

- Manufacturers have pushed back against a broader "right to repair" as that would **hurt their ability to sell new products** more frequently, and **would push them to become a service provider** rather than a product maker.
- They also say allowing the consumer to **repair high-technology products is a risk**, think of **lithium-ion** batteries in cars.

E-waste in India

➢ **Official Data:**

- According to the **Central Pollution Control Board (CPCB)**, India generated more than **10 lakh tonnes of e-waste in 2019-20,** an increase from 7 lakh tonnes in 2017-18.

E-Waste

➢ **About**:

- E-Waste is short for **Electronic-Waste** and the term is used to describe old, end-of-life or discarded electronic appliances. It includes **their components, consumables, parts and spares.**
- It is categorised into 21 types under **two broad categories:**
  - Information technology and communication equipment.
  - Consumer electrical and electronics.
- E-waste includes their components, consumables, parts and spares.

➢ **Indian Initiatives**:

- **E-Waste Management Rules, 2016**:
  - The rules aim to enable the **recovery and/or reuse of useful material from e-waste**, thereby reducing the hazardous wastes destined for disposal and to ensure the environmentally sound management of all types of waste of electrical and electronic equipment.
- **E-Waste Clinic:**
  - Aimed at segregating, processing and disposal of waste.

Black-Browed Babbler Rediscovered

Why in News

Recently, a **Black-Browed Babbler** *(Malacocincla perspicillata*) was **rediscovered** in southeastern Kalimantan, the part of **Borneo** that is administered by **Indonesia.**

Key Points

➢ **History:**

- In the **1840s, a mystery bird** was caught on an expedition to the East Indies. It was named as black-browed babbler.
- The species was never seen in the wild again, and a stuffed specimen featuring a bright yellow glass eye was the only proof of its existence.
  - No Asian bird has been missing for as long as Indonesia's Black-browed Babbler. It has been **missing for the last 170 years**.

Note:

- This bird is often called **'the biggest enigma in Indonesian ornithology'**.

➢ **About**:

- It has a **strong bill, chocolate colouring and distinctive black eye-stripe**, its iris is of **striking maroon colour**.
- It has **brown wings** and a **black stripe** across its brow.

➢ **Significance**:

- Discoveries like this give hope that it's possible to find other species that have been lost to science for decades or longer.
  - More than **150 species of birds around the world are considered "lost"** with no confirmed sightings in the past decade.

➢ **Protection Status:**

- **IUCN Red List**: Data Deficient

NDC Synthesis Report: UNFCCC

Why in News

The **UNFCCC**, in its **Nationally Determined Contributions (NDC) Synthesis Report,** has called for more ambitious climate action plans by the countries in order to achieve the **Paris Agreement target** of containing global temperature rise to 2°C (ideally 1.5°C) by the end of the century.

➢ The report was **sought ahead of the 26th session of the Conference of the Parties (COP 26) to the UNFCCC** which is scheduled to take place from 1st-12th November 2021, in Glasgow, UK.

➢ NDCs are at the heart of the Paris Agreement and embody efforts by each country to reduce national emissions and adapt to the impacts of climate change. Each NDC reflects the country's ambition, taking into account its domestic circumstances and capabilities.

Key Points

➢ **About:**

- The NDC Synthesis Report **covers submissions up to 31st December 2020 and includes new or updated NDCs by 75 Parties**, which represent approximately **30% of global greenhouse gas emissions.**

➢ **Findings:**

- **Good Performers:**
  - The United Kingdom and the European Union are the only regions among 18 of the world's biggest emitters that have significantly increased their greenhouse gas (GHG) reduction targets.
- **Under Performers:**
  - Sixteen of the world's biggest emitters have not increased their emission reduction targets substantially or at all.
- **Adaptation Action and Economic Diversification:**
  - More countries reported on mitigation co-benefits of adaptation action and economic diversification plans.
  - Adaptation actions and economic diversification plans with mitigation co-benefits include **climate-smart agriculture, adapting coastal ecosystems**, increasing the **share of renewable sources in energy generation**, **carbon dioxide capture and storage, fuel switch and fuel price reforms** in the transport sector, and moving to a **circular economy** for better waste management.
- **Need for the Update:**
  - The **current levels of climate ambition are very far** from putting us on a pathway that will **meet our Paris Agreement goals.**
  - While a majority of countries increased their individual levels of ambition to reduce emissions, their combined impact will **help achieve only a 1% reduction by 2030 compared to 2010 levels.**
    - Global emissions, however, **need to reduce by 45% in order to meet the 1.5°C goal**, according to the **Intergovernmental Panel on Climate Change.**

UNFCCC

➢ **About:**

- UNFCCC stands for **United Nations Framework Convention on Climate Change.**
- The **UNFCCC secretariat (UN Climate Change) is the United Nations entity** tasked with supporting the global response to the threat of climate change.
- The Convention has **near universal membership (197 Parties)** and is the **parent treaty of the 2015 Paris Agreement.** The UNFCCC is **also the parent treaty of the 1997 Kyoto Protocol.**

Note:

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- **Secretariat:**
  - The UNFCCC secretariat is **located in Bonn, Germany.**
- **Objective:**
  - The ultimate objective of all three agreements under the UNFCCC is to stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system, in a time frame which allows ecosystems to adapt naturally and enables sustainable development.

Paris Agreement

- **About:**
  - Paris Agreement (also known as the **Conference of Parties 21 or COP 21**) is a landmark environmental accord that was adopted in 2015 to address climate change and its negative impacts.
  - It replaced the **Kyoto Protocol** which was an earlier agreement to deal with climate change.
- **Aims:** To **reduce global GHG emissions** in an effort to limit the global temperature increase in this century to **well below 2°C** above pre-industrial levels, while pursuing means to limit the increase to 1.5°C by 2100. It also includes:
  - Addressing the financial losses vulnerable countries face from climate impacts such as extreme weather.
  - Providing financial assistance to countries that are less endowed and more vulnerable enabling them to adapt to climate change and transition to clean energy.
  - Climate finance is needed for mitigation, because large-scale investments are required to significantly reduce emissions. However, this part of the deal has been made non-legally binding on developed countries.
- **INDCs:** Before the conference started, more than 180 countries had submitted pledges to cut their carbon emissions (Intended Nationally Determined Contributions or INDCs).
  - The INDCs were recognised under the agreement, but are not legally binding.
  - India also reaffirmed its INDCs commitments to meeting the goals under the Agreement in order to combat climate change.
- **CMA:**
  - The CMA **oversees the implementation of the Paris Agreement** and takes decisions to promote its effective implementation.
  - All States that are Parties to the Paris Agreement are represented at the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA), while States that are not Parties participate as observers.

India's INDC, to be achieved primarily, by 2030

- To reduce the emissions intensity of the GDP by about a third.
- A total of 40% of the installed capacity for electricity will be from non-fossil fuel sources.
- India also promised an additional carbon sink (a means to absorb carbon dioxide from the atmosphere) of 2.5 to 3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover by the year 2030.

Similipal Biosphere Reserve: Odisha

Why in News

Recently, a massive fire broke out in the **Similipal Biosphere Reserve** in Odisha. The core area of the biosphere was untouched by the fire, however the fire is threatening damage to its rich biodiversity.

Key Points

- **About:**
  - Similipal **derives its name from 'Simul' (silk cotton) tree.**
  - It was formally designated a **tiger reserve in 1956** and brought under **Project Tiger in the year 1973.**
  - It was declared a **biosphere reserve** by the Government of India in **June, 1994.**
  - It has been part of the **UNESCO World Network of Biosphere Reserve** since **2009.**
  - It is part of the **Similipal-Kuldiha-Hadgarh Elephant Reserve** popularly known as **Mayurbhanj Elephant Reserve**, which includes 3 protected areas i.e. Similipal Tiger Reserve, Hadagarh Wildlife sanctuary and Kuldiha wildlife sanctuary.
- **Location:**

Note:

- It is situated in the northern part of Odisha's Mayurbhanj district. Geographically, it lies in the eastern end of the eastern ghat.

➢ **Coverage:**
- The biosphere spread over 4,374 sq. km. has 845 sq. km. of core forest (tiger reserve), 2,129 sq km buffer area and 1,400 sq km of transition space.

➢ **Vegetation:**
- Similipal has 1,076 flowering species and 96 species of orchids. It boasts of having tropical semi-evergreen forests, tropical moist deciduous forests, dry deciduous hill forests, high level sal forests and sprawling meadows.

➢ **Tribes:**
- Two tribes, the **Erenga Kharias** and the **Mankirdias**, inhabit the reserve's forests and practise traditional agricultural activities (the collection of seeds and timber).

➢ **Wildlife:**
- Similipal is home to a wide range of wild animals including tigers and **elephants**, besides 304 species of birds, 20 species of amphibians and 62 species of reptiles.

➢ **Vulnerability to Forest Fires:**
- **Natural Causes:** Such as lighting or even soaring temperatures can sometimes result in **forest fires** here.
- **Man Made Factors:** Instances of poaching and hunting wherein the poachers set a small patch of forest on fire to divert the wild animals, can lead to forest fires.

➢ **Mitigation Strategies:**
- Forecasting fire-prone days and including community members to mitigate incidents of fire, creating fire lines, clearing sites of dried biomass, and crackdown on poachers.
- The forest fire lines which are strips kept clear of vegetation, could help break the forest into compartments to prevent fires from spreading.

Other Major Protected Areas in Odisha

➢ **National Parks:**
- **Bhitarkanika National Park:** It is home to the largest congregation of the endangered SaltWater Crocodile in the country.

➢ **Wildlife Sanctuaries:**
- **Badrama WLS:** It is characterized by the presence of Moist Sal Forests.
- **Chilika (Nalaban island) WLS:** Asia's largest and world's second-largest lagoon. Recently, direct sightings of school of Irrawaddy dolphins has been reported here.
- **Hadgarh WLS:** Salandi river passes through it which is home to mugger crocodiles.
- **Baisipalli WLS:** It is a sal dominated forest with a significant number of tigers, leopards, elephants, herbivores like Chousingha.
- **Kotagarh WLS:** It consists of dense deciduous forests with grasslands.
- **Nandankanan WLS:** First in the world to breed White tiger and Melanistic tiger.
- **Lakhari Valley WLS:** It is a dwelling place of a large number of elephants.
- **Gahirmatha (Marine) WLS:** It is a mass nesting spot in Indian Ocean region and the only turtle sanctuary in Odisha. **The Olive Ridley turtles** travel across the South Pacific to breed on the coast of Gahirmatha.

WWF Conservation Drive on World Wildlife Day

Why in News

Recently, on the occasion of **World Wildlife Day (3rd March)**, the **Worldwide Fund for Nature (WWF)** called on multiple stakeholders, including the **European Union (EU)**, to save Europe's last old-growth forests.

➢ WWF was **established in 1961** and is **headquartered at Gland, Switzerland.** Its mission is to conserve nature and reduce the most pressing threats to the diversity of life on Earth.

Key Points

➢ **About:**
- Europe's Old-Growth Forests (OGF) are **primitive forests that are dominated by natural processes.** They include virgin, near-virgin, long-untouched forests by humans, eg: Białowieża Forest in Poland.
- To date, 3,50,000 hectares (ha) of old-growth and virgin forests had been identified in Central and Southeastern Europe. Of these, only 2,80,000 ha were legally protected.

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- **Location:**
  - The largest areas of surviving OGF and forest habitats in Europe (outside of Russia) were found primarily in Romania, Ukraine, Slovakia and Bulgaria.
- **Ecological Importance:**
  - They were **home to Europe's largest surviving large carnivore populations**, as well as thousands of other species of flora and fauna.
  - These forests **rendered important ecosystem services** such as filtering and storing freshwater to regulating the climate and were thus essential to people and to the economy.
- **Threats:**
  - Increasing pressure on forests from both **unsustainable legal and illegal logging**, as well as the **impacts of climate change.**
  - The fragmentation and destruction of forest habitats meant that **both animals and disease vectors were inadvertently coming into more frequent contact and conflict with humans.**
- **Steps that can be Taken:**
  - Developing and promoting **sustainable compensation mechanisms.**
  - Developing **forest-based local green business and investment schemes** to support sustainable development of such forests.

World Wildlife Day

- **About:**
  - It is celebrated every year on the **3rd of March**, since 2013. The date chosen coincides with the day the **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)** was signed in 1973.
  - The **United Nations General Assembly** resolution also designated the CITES Secretariat as the facilitator for the global observance of this special day for wildlife on the UN calendar.
- **Theme:**
  - The theme of World Wildlife Day 2021 is **Forests and Livelihoods: Sustaining People and Planet**. It is set in alignment with the UN **Sustainable Development Goals.**
- **In India:**
  - On this occasion, **the Union Environment Ministry declared that it is dedicated for reintroduction of Cheetah**, which went extinct in 1952.

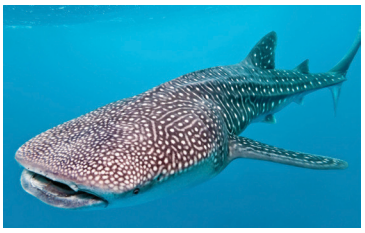
Whale Shark

Why in News

Recently, fishers in Odisha rescued a **whale shark**.

Key Points

- **About:**
  - Whale sharks are the **largest shark,** and indeed **largest of any fishes alive today** and they **travel large distances** to find enough food to sustain their huge size, and to reproduce.



  - The whale shark is a **'filter feeder shark'** which means it does not eat meat like other sharks. Whale sharks **filter sea water** and **feed on tiny planktons.**
  - The maximum size of whale sharks is not known, but **could be as large as 20m.**
- **Scientific Name:**
  - Rhincodon typus.
- **Habitat:**
  - Whale sharks are **found in all the tropical oceans** of the world.
- **Threats**:
  - **Oil & gas drilling, shipping lanes** etc.
- **Protection Status:**
  - **IUCN Red List:** Endangered
  - **CITES:** Appendix II
  - **Indian Wildlife Protection Act, 1972**: Schedule I

Pench Tiger Reserve: Maharashtra

Why in News

Recently, a female cub of 'man-eater' tigress Avni has been released into the wild in the **Pench Tiger Reserve (PTR) of Maharashtra.**

Key Points

- **About**:

Note:

- It is located in **Nagpur District of Maharashtra** and named after the pristine **Pench River**.
  - The Pench river flows right through the middle of the park.
  - It descends from north to south, thereby **dividing the reserve into equal eastern and western parts.**
- PTR is the **joint pride** of both **Madhya Pradesh** and **Maharashtra**.
  - The Reserve is located in the southern reaches of the Satpura hills in the Seoni and Chhindwara districts in Madhya Pradesh, and continues in Nagpur district in Maharashtra as a separate Sanctuary.
- It was **declared a National Park by the Government of Maharashtra in 1975** and the identity of a **tiger reserve was granted to it in the year 1998-1999.**
  - However, PTR Madhya Pradesh was granted the same status in 1992-1993. It is one of the major Protected Areas of **Satpura-Maikal ranges** of the Central Highlands.
- It is among the sites notified as **Important Bird Areas (IBA) of India**.
  - The IBA is a programme of Birdlife International which **aims to identify, monitor and protect a global network of IBAs** for **conservation of the world's birds** and associated diversity.

➢ **Flora:**
- The green cover is thickly spread throughout the reserve.
- A mixture of **Southern dry broadleaf teak forests** and **tropical mixed deciduous forests** is present.
- Shrubs, climbers and trees are also frequently present. **Some of them are unique varieties and possess medicinal as well as healing properties.**
- **Bamboo plantations** are also present nearby the water banks.

➢ **Fauna**:
- **Mammals:**
  - These include – sloth bear, jackal, nilgai, wild dog etc.
- **Birds:**
  - This comprises peafowl, magpie robin, pintail, drongo, unia, myna etc.

➢ **Major Tiger Reserves of India:**

CERA Week Global Energy and Environment Leadership Award

Why in News

The **Prime Minister of India** was conferred with the **Global Energy and Environment Leadership Award** by **Cambridge Energy Research Associates (CERA)**.

➢ He was awarded for his commitment to expanding India's leadership in **sustainable development** to meet the country's, and the world's, future energy needs.

➢ He addressed the **CERAWeek conference** and **highlighted the steps taken by India** to address the issue of climate change and attaining the target of achieving clean fuel.

Key Points

➢ **About the CERAWeek Global Energy and Environment Leadership Award**:
- The Award was **instituted in 2016.**
- It **recognises the commitment of leadership on the future of global energy and environment,** and for offering solutions and policies for energy access, affordability and environmental stewardship.

➢ **Cambridge Energy Research Associates (CERA)**:

Note:

- It is **a consulting company in the United States** that specializes in advising governments and private companies on energy markets, geopolitics, industry trends, and strategy.

➢ **CERAWeek**:

- It was **founded in 1983 by Dr. Daniel Yergin**.
- It is an **annual energy conference, organized in Houston (USA) in March,** since 1983.
- CERAWeek **by IHS Markit** is the annual international gathering of energy industry leaders, experts, government officials and policymakers, leaders from the technology, financial and industrial communities - and energy technology innovators.
- **CERAWeek 2021** was convened virtually from 1st-5th March, 2021.
  - **Theme**: The New Map: Energy, Climate, and Charting the Future.

➢ **Highlights of PM Address:**

- The Prime Minister in his address discussed the key initiatives taken by India to attain climate justice:
  - **National Hydrogen Mission,**
  - **PM KUSUM,**
  - **Bharat - 6 emission norms,**
  - **Give It Up Subsidy Movement,**
  - **SATAT initiatives,**
  - **Blending of ethanol,**
  - **Modern techniques of irrigation,**
  - **Organic farming,**
  - **International Solar Alliance,**
  - India's commitment towards the **Paris Climate Accord**, and
  - Talked of **Mahatma Gandhi's Principle of Trusteeship**.
    - At the core of Trusteeship is **collectivism**, **compassion** and **responsibility**.

Independent Environment Regulator

Why in News

Recently, the **Supreme Court** (SC) asked the government to explain the reasons for not setting up an **"Independent Environment Regulator"** to oversee green clearances.

Key Points

➢ **SC's Order:**

- SC had ordered the setting up of a national environment regulatory body under the **Environment (Protection) Act, 1986** to ensure independent oversight of green clearances way back in ***Lafarge Umiam Mining Private Limited v. Union of India case*** **(2011)**, commonly known as the **Lafarge mining case.**

➢ **Envisaged Functions of the Regulator**:

- **Appraisal and Approval:**
  - The regulator will carry out **independent, objective and transparent appraisal and approval of projects** for environmental clearances.
- **Monitoring and Implementation:**
  - It will also **monitor the implementation of the conditions** laid down in the clearances and impose **penalties on polluters**. While exercising such powers, the regulator will ensure the **National Forest Policy, 1988** is duly implemented.

➢ **Current Issues:**

- **Related to Environment Impact Assessment (2006):**
  - **Lack of Capacity:**
    - The **environmental clearance at the national level** is overseen by an **Expert Appraisal Committee (EAC)**, which functions on an ad-hoc basis, **without much regulatory capacity.**
    - The state-level appraisal committees overseeing the clearance also function without much regulatory support.
      1. The committees function as per the **Environment Impact Assessment (EIA) Notification 2006.**
  - **Lack of Expertise:**
    - The EAC has been **questioned on many occasions for lack of expertise** of its members and chairpersons.
  - **Lack of Proper Legislation**:
    - EAC and the state-level committees are **toothless due to the lack of effective legislative power and supporting institutional capacity.**
- **Multiplicity of Regulations and Increasing Cost:**
  - There are too many clearances for the same thing; and none of them seem to be working

Note:

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for the environment or for **protecting the rights of communities**. Worse, they are adding to the burden of industry in terms of high transaction costs.

- Forest clearance under Section 2 of the **Forest (Conservation) Act, 1980.**
- Coastal clearance under the **Coastal Regulation Zone Notification, 2011.**
- Wildlife clearance under the **Wildlife Protection Act, 1972.**

- This **multiplicity of regulations** and regulatory authorities help unscrupulous elements in the industry and the government.

➢ **Need:**

❍ **Unbiased Decision Making:**

- Lack of an independent body to oversee the entire environmental regulatory process could lead to a possible political interest in the decision making.

❍ **Proper Compliance:**

- The major concerns regarding EIA norms, such as the compliance monitoring and ex-post regularisation, could be tackled with proper standard-setting by a regulator.

❍ **Capacity and Independence:**

- The present environmental regulation institutional mechanism in India, which lies with pollution control boards at the state and central level, lacks regulatory capacity and independence.

❍ **Preventing Regulatory Delays:**

- Cutting down on regulatory delays is also important. This may be possible with the help of a credible independent regulator. But an optimum level of rigour in the regulatory process and standards is important for environmental protection.

➢ **Temporary Solution:**

❍ As per the SC till an Independent Regulator was put in place, the Environment Ministry should prepare a **panel of accredited institutions from which alone the project proponent should obtain the Rapid Environmental Impact Assessment (EIA)**.

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History

Highlights

- *Morarji Desai*
- *Biju Patnaik*
- *Sculpture of Hardit Singh Malik*
- *Dandi March to Mark 75 Years of Independence*

Morarji Desai

Why in News

Recently, the **125th birth anniversary of former Prime Minister Morarji Desai** was observed (29th February 2021).

- He was the 4th Prime Minister (1977-79) and the first non-Congress Prime Minister of India.

Key Points

- **Early Life:**
  - Shri Morarji Desai was born on 29th February, 1896 in Bhadeli village, now in the Bulsar district of Gujarat.
  - After graduating in 1918 from the Wilson Civil Service in Bombay, he served as a Deputy Collector for twelve years.
- **Contribution in Freedom Struggle:**
  - **Joined Congress:**
    - In 1930, when India was in the midst of the **Civil Disobedience Movement** launched by Mahatma Gandhi, Shri Desai, having lost his confidence in the British sense of justice, **decided to resign from Government service and to plunge into the struggle.**
    - Shri Desai was **imprisoned thrice** during the freedom struggle. He became a Member of the All India Congress Committee in 1931 and was Secretary of the Gujarat Pradesh Congress Committee until 1937.
  - **Participation in Individual Satyagraha:**
    - He was **detained in the individual Satyagraha** launched by Mahatma Gandhi, released in October, 1941 and detained again in August, 1942 at the time of the **Quit India Movement.**
- **Political Career:**
  - In 1952, he became the **Chief Minister of Bombay.**
  - He joined the **Union Cabinet as Minister for Commerce and Industry** in November, 1956. Later, he took the Finance portfolio in March, 1958.
  - In 1963, he resigned from the **Union Cabinet under the Kamraj Plan. Shri Lal Bahadur Shastri**, who succeeded Pt. Nehru, as Prime Minister, **persuaded him to become Chairman of the Administrative Reforms Commission** for restructuring the administrative system.
    - **According to Kamaraj Plan**, it was proposed that all senior Congress leaders should resign from their posts and devote all their energy to the revitalization of the Congress.
  - Desai was **arrested and detained on 26th June, 1975, when Emergency was declared.** He went on an indefinite hunger strike to support the **Nav Nirman movement of Gujarat.**
    - **Nav Nirman Andolan** was a socio-political movement in 1974 in Gujarat by students and middle-class people against economic crisis and corruption in public life.
  - He was later unanimously elected as Leader of the Janata Party in Parliament and was sworn in as the **Prime Minister of India on 24th March, 1977.**
- **His Ideology:**
  - **Against Inequality:** According to him, unless the poor and the under privileged living in villages and towns enjoy a decent standard of life, the talk of socialism will not have much meaning. Shri Desai gave concrete expression to his anxiety by enacting progressive legislation to ameliorate the hardships of peasants and tenants.
  - **Supported Austerity:** Shri Desai translated into action what he had professed in matters of economic

Note:

planning and fiscal administration. In order to meet the needs of defense and development, he raised large revenues, reduced wasteful expenditure and promoted austerity in Government expenditure on administration. He kept **deficit financing** very low by enforcing financial discipline. He brought curbs on extravagant living of the privileged section of society.

- **Rule of Law:** As Prime Minister, Shri Desai was keen that the people of India must be helped to become fearless to an extent where even if the highest in the land commits a wrong, the humblest should be able to point it out to him. "No one, not even the Prime Minister", he was repeatedly said, should be above the law of the land".
- **Strict Disciplinarian:** For him, truth was an article of faith and not an expediency. He seldom allowed his principles to be subordinated to the exigencies of the situation.

Biju Patnaik

Why in News

The **birth anniversary of Biju Patnaik** was celebrated (5th March). He is remembered as a freedom fighter, an Indian politician, an aviator and a businessman.

Key Points

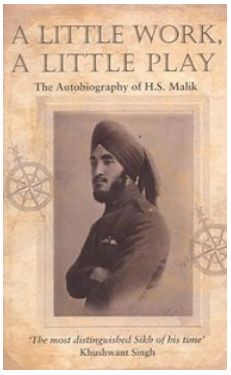
- **Brief Profile**:
  - Bijayananda Patnaik was **born on 5th March 1916**, he is popularly known as Biju Patnaik.
  - He was an ace pilot and joined the Royal Indian Air Force in 1936.
  - He was the two times Chief Minister of Odisha.

- **Role in Freedom Struggle**:
  - Biju Patnaik started his career as a freedom fighter in 1942. He **joined the Quit India Movement** under the guidance of Mahatma Gandhi to make India free.
    - He became a prominent leader of Congress and was engaged in the Quit India Movement with **Jay Prakash Narayan** and **Dr. Ram Manohar Lohia.**
    - In 1943, he **underwent imprisonment for about two years** for his participation in the Quit India Movement.
  - He fearlessly undertook covert missions, ferrying freedom fighters to secret meetings with their supporters, and even airdropped leaflets in support of **Netaji Subhas Chandra Bose's Indian National Army.**
  - He played a major role in **World War II** and the **Kashmir War of 1948** as a pilot in the Indian Air Force.
- **Role in Kashmir Integration**:
  - Biju Patnaik had fearlessly flown a DC-3 transport aircraft to Srinagar on 27th October 1947, ferrying soldiers of the Sikh regiment after the tribal invasion from Pakistan in Kashmir.
- **Role in Indonesian Freedom Struggle**:
  - On the request of Pandit Jawaharlal Nehru, Biju Patnaik flew to Java and brought Sultan Sjahrir out of Dutch controlled territory in Indonesia for a meeting in Delhi.
    - For this act of bravery, he was given honorary citizenship in Indonesia and awarded the '**Bhoomi Putra**', the highest Indonesian award, rarely granted to a foreigner.
    - In 1996, the Biju Patnaik was awarded the highest Indonesian national award, the '**Bintang Jasa Utma**'.

Sculpture of Hardit Singh Malik

Why in News

Recently, England has approved the design for a sculpture of an early 20th century Sikh fighter pilot **"Hardit Singh Malik"** for a new memorial to be erected in the **port city of Southampton.**



- The memorial is built in memory of all Indians who fought in the **World Wars.**
- The memorial will be created by English sculptor **Luke Perry.**

Key Points

- **About Hardit Singh Malik:**
  - **Birth**:

Note:

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- He was born into a Sikh family on **23rd November 1894** in Rawalpindi in West Punjab, pre-partitioned India.

❍ **Career**:

- Hardit Singh Malik first arrived in the **UK in 1908** as a 14-year-old to **Balliol College at the University of Oxford**.
- He became a member of the **Royal Flying Corps** during **World War I (1914-1918).**
  - As the first Indian and turbaned pilot with a specialised helmet, he became famous as the **"Flying Sikh"**.
- He was also the **Indian Ambassador to France** after a long and distinguished career in the Indian Civil Service.

❍ **Death**:

- He died in New Delhi on **31st October 1985.**

➢ **India's Contribution to World War I:**

❍ **About**:

- World War I (WW I), also known as the Great War, **lasted from July 1914 to November 1918.**
- WW I was fought between the Allied Powers and the Central Powers.
  - **Allied Powers:** France, Russia, and Britain. The United States also fought on the side of the Allies after 1917.
  - **Central Powers:** Germany, Austria-Hungary, the Ottoman Empire, and Bulgaria.
- India made a **huge contribution to Britain's war effort**.
- As high as **100 million British Pounds** was given by India to Britain to fund their war anticipating dominion status and home rule in return.
- The British raised **men and money from India**, as well as **large supplies of food, cash, and ammunition,** collected by British taxation policies.
  - In return, th**e British promised to award self-rule** to India at the end of the war **which eventually was not delivered.**

❍ **Troops**:

- It sent staggering numbers of volunteers to fight and die on behalf of the allied forces.
- Almost **1.5 million Muslim, Sikh and Hindu men** from regions such as the **Punjab, Uttar Pradesh, Maharashtra, Tamil Nadu and Bihar** volunteered in the **Indian Expeditionary Force**, which fought on the Western Front, in East Africa, Mesopotamia, Egypt and Gallipoli.
- However, of these men, around **50,000 died, 65,000 were wounded, and 10,000 were reported missing,** while 98 Indian army nurses were killed.

➢ **India's Contribution to World War II:**

❍ **About**:

- **World War II**, also called Second World War, was a conflict that involved virtually every part of the world during the years **1939–45**.
- The principal belligerents were:
  - **Axis powers:** Germany, Italy, and Japan.
  - **Allies**: France, Great Britain, the United States, the Soviet Union, and, to a lesser extent, China.
- India sacrificed too much for the war. In the end the **promised independence was also not granted**. Indian **contribution was hence largely neglected by the allied powers.**

❍ **Troops**:

- Approximately 2.5 million **Indian soldiers served in World War 2**.
- Over **36,000** Indian soldiers **lost their lives**, **34,000 were wounded** and **67,000 were taken prisoners** of war.
- Their exploits were seen in East and North Africa, Italy, Burma, and as far out as Singapore, Malay Peninsula, Guam, and Indo China.
- In the East, the Indian soldiers, as part of the British Indian Army, fought against the Japanese and were responsible for ultimately securing South East Asia that included Singapore, the Malay Peninsula and Burma.

Dandi March to Mark 75 Years of Independence

Why in News

The Prime Minister has flagged off a commemorative **'Dandi March'** (on 12th March) to launch the **celebrations of the 75th year of Independence - 'Azadi Ka Amrit Mahotsav'.**

Key Points

Note:

- **About the 2021 Dandi March:**
  - The padyatra is being undertaken by 81 marchers **from Sabarmati Ashram in Ahmedabad to Dandi in Navsari**, a journey of 386 km. The march will **end after 25 days**, on 5th April 2021.
  - **Descendants** of those **who walked the Salt March** (in 1930) **will be honoured**.
  - Marchers will traverse the route **in memory of the 78 who accompanied Mahatma Gandhi in 1930** from Ahmedabad to Dandi and **two others** who had joined mid-route.
  - Big events will be organised at **six places** associated with Gandhi. These include **MK Gandhi's birthplace Porbandar**, along with **Rajkot, Vadodara, Bardoli (Surat), Mandvi (Kutch) and Dandi (Navsari).**
  - **Cultural programmes** are planned at **21 spots** on the route **at the nightly stops for the walkers.**
- **About the 1930 Dandi March:**
  - The Dandi March, also known as the **Salt March** and the **Dandi Satyagraha** was an act of **nonviolent civil disobedience** led **by Mohandas Karamchand Gandhi.**
  - The march lasted from **12th March, 1930 to 6th April, 1930** as a direct action campaign of tax resistance and nonviolent protest **against the British salt monopoly**.
  - On **12th March**, Gandhiji set out from Sabarmati with **78 followers on a 241-mile** march to the coastal town of **Dandi on the Arabian Sea**. There, Gandhi and his supporters were to defy British policy by making salt from seawater.
  - At Dandi, thousands more followed his lead, and in the coastal cities of Bombay and Karachi, Indian nationalists led crowds of citizens in making salt.
  - **Civil disobedience broke out all across India,** soon involving millions of Indians, and British authorities arrested more than 60,000 people. Gandhiji himself was arrested on 5th May, but the satyagraha continued without him.
  - On **21st May**, the poet **Sarojini Naidu** led 2,500 marchers on the **Dharasana Salt Works,** some 150 miles north of Bombay. The incident, recorded by American journalist Webb Miller, prompted an international outcry against British policy in India.
  - In January 1931, Gandhiji was released from prison. He later met with Lord Irwin, the viceroy of India, and **agreed to call off the satyagraha in exchange for an equal negotiating role at a London conference** on India's future.
    - In August 1931, **Gandhiji traveled to the conference as the sole representative of the nationalist Indian National Congress**. The meeting was a disappointment, but British leaders had acknowledged him as a force they could not suppress or ignore.
- **1930 Dandi March (Background):**
  - The **Lahore Congress of 1929 had authorized the Congress Working Committee (CWC) to launch a programme of civil disobedience** including non-payment of taxes.
  - On **26th January 1930**, **"Independence Day"** was observed, with the national flag being hoisted in different venues, and patriotic songs being sung.
  - In February 1930, CWC meeting at Sabarmati Ashram, invested Gandhiji with full powers to launch the Civil Disobedience Movement at a time and place of his choice.
  - Gandhiji's ultimatum to **Lord Irwin, the Viceroy of India (1926-31)**, stating the minimum demands had been ignored and there was only one way out-civil disobedience.
- **Effect of the Movement:**
  - Civil Disobedience in different forms continued in different provinces. Special stress was laid on the boycott of foreign goods.
  - In eastern India, **payment of chowkidari tax was refused**. This **no-tax campaign became very popular in Bihar.**
  - In Bengal, **J.N. Sengupta defied Government laws** by reading openly the books banned by the government.
  - **Defiance of forest laws** assumed a mass character in Maharashtra.
  - The movement had taken a fire hold in provinces of U.P., Orissa. Tamil Nadu, Andhra Pradesh and Assam.
- **Significance:**
  - **Imports from Britain had fallen considerably.** For example, imports of cloth from Britain had fallen by half.
  - The movement was **more widespread than the previous one**. Mass participation including **women, peasants, workers, students, urban elements like**

Note:

merchants, shopkeepers provided the Congress a new all-India status.

- The support that the movement had garnered from the **poor and the illiterate both in the town and countryside** was remarkable.
- For **Indian women**, the movement was the most liberating experience to date and can truly be said to have marked their entry into the public space.
- Although the **Congress withdrew the Civil Disobedience in 1934,** the movement received global attention and marked a critically important stage in the progress of the anti-imperialist struggle.

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Note:

Art & Culture

Highlights

- *Rashtriya Sanskriti Mahotsav 2021*
- *Sahitya Akademi Award*

Rashtriya Sanskriti Mahotsav 2021

Why in News

The third and final leg of 11th edition of the Rashtriya Sanskriti Mahotsav 2021 took place at Murshidabad, West Bengal.

- Various colourful performances were given by the local artists, including **'Baul Gaan', 'Alkup Gaan', 'Leto gaan', 'Jhumuriya' and Ranpa folk dances**.

Key Point

- Rashtriya Sanskriti Mahotsav is the flagship festival of the **Ministry of Culture**.
- It has been organized since 2015 with the active participation of **Seven Zonal Culture Centres.**
- It was started with an intention to exhibit the rich cultural heritage of the country in all its rich and varied dimensions namely, Handicrafts, Cuisine, Painting, Sculpture and Performing Arts- Folk, Tribal, Classical and Contemporary- all at one place.
- **Significance**:
  - It has been playing a pivotal role **to take the vibrant culture of India out to the masses** instead of confining it to auditoria and galleries.
  - It has been instrumental in **showcasing folk and tribal art,** dance, music, cuisines & culture of one state in other states reinforcing the cherished goal of **"Ek Bharat Shreshtha Bharat".**
  - It also provides **an effective platform to the artists and artisans** to support their livelihood.
  - It **reconnects the people (especially the youth) with their indigenous culture**, its multifaceted nature, magnificence, and historical importance in the context of **'India as a Nation'** over the millennia.
- Till date, Rashtriya Sanskriti Mahotsavs have been held at various places such as Delhi, Varanasi, Bengaluru, Tawang, Gujarat, Karnataka, Tehri and Madhya Pradesh.

Ek Bharat Shreshtha Bharat

- It was launched in 2015 to **promote engagement amongst the people** of different States/UTs so as to enhance mutual understanding and bonding between people of diverse cultures, thereby securing stronger unity and integrity of India.
- It is an initiative of the **Ministry of Education.**
- The broad objectives of the initiative are as follows:
  - To **CELEBRATE** the Unity in Diversity of our nation and to maintain and strengthen the fabric of traditionally existing emotional bonds between the people,
  - To **PROMOTE** the spirit of national integration through a deep and structured engagement between all Indian states and Union Territories through a year-long planned engagement between states,
  - To **SHOWCASE** the rich heritage and culture, customs and traditions of different states for enabling people to understand and appreciate the diversity that is India, thus fostering a sense of common identity,
  - To **ESTABLISH** long-term engagements, and
  - To **CREATE** an environment which promotes learning between states by sharing best practices and experiences.
- **Every State and UT in the country would be paired with another State/UT for a time period**, during which they would carry out a structured engagement with one another in the spheres of language, literature, cuisine, festivals, cultural events, tourism etc.

Zonal Cultural Centres

- The centres aim to strengthen the ancient roots of Indian Culture and evolve and enrich composite National Culture.

Note:

- There are seven Zonal Cultural Centres (ZCC) in India.
  - Eastern Zonal Cultural Centre Kolkata, North Central Zone Cultural Centre Allahabad, North east Zone Cultural centre Dimapur, North Zone Cultural centre Patiala, South Central Zone Cultural Centre Nagpur, South Zone Cultural Centre Thanjavur, West Zone Cultural Centre Udaipur.
- These ZCCs organize various cultural activities and programmes all over the country on a regular basis.
- Other schemes of ZCCs - Award to Young Talented Artists, Guru Shishya Parampara, Theatre Rejuvenation, Shilpgram, Octave and National Cultural Exchange Programme (NCEP).

Sahitya Akademi Award

Why in News

Recently, Marathi writer Nanda Khare **refused to accept the Sahitya Akademi award** for his novel **"Udya"**, published in 2014.

Key Points

- **About Sahitya Akademi Award:**
  - Sahitya Akademi award **established in 1954**, is a literary honour that is conferred **annually by Sahitya Akademi**, India's National Academy of letters.
  - Akademi gives **24 awards annually to literary works** in the languages it has recognized and an equal number of awards to literary translations from and into the languages of India.
    - **Besides the 22 languages** enumerated in the Constitution of India, the Sahitya Akademi has **recognised English and Rajasthani** as languages in which its programme may be implemented.
  - The Sahitya Akademi award is the **second-highest literary honour** by the Government of India, **after the Jnanpith award**.
- **Criteria for Choosing Awardee:**
  - The author must be of **Indian Nationality.**
  - Book/work eligible for the award must be an outstanding contribution to the language and literature to which it belongs.
  - When equal merit for books of two or more are found, certain criteria like total literary contribution and standing of authors shall be taken into consideration for declaring award.
- **About the Marathi Novel 'Udya':**
  - It is a futuristic account of the possible **scenarios emerging** as consequences of the current **capitalistic and machine-driven human life**.
  - It nuances how humans have been enslaved by machines, particularly by the ones that are susceptible to surveillance of one's personal life.

Jnanpith Award

- The Jnanpith award is the **highest literary award** in India and can only be conferred **annually upon an Indian citizen.**
- **English** along with other languages mentioned in **Indian Constitution (8th Schedule)** is considered for the Award.
- The prize carries a cash award of Rs. 11 lakhs, a citation, and a bronze replica of Vagdevi (Saraswati), the goddess of learning.
- It is sponsored by the **cultural organization Bharatiya Jnanpith.**
- For 2018, author **Amitav Ghosh** became the **first English language write**r to become a Jnanpith laureate.
- Akkitham Achuthan Namboothiri in Malayalam language is the latest recipient of the award for the year 2019.

Other Sahitya Akademi Awards

- **Sahitya Akademi Bal Sahitya Puraskar** is given to an author based on his/her total contribution to **children literature and** relates to books first published during the five years immediately preceding the year of Award.
- **Sahitya Akademi Yuva Puraskar** relates to books published by an **author of the age of 35 and below.**

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Note:

Geography

Highlights

- *Bhadar Dam: Gujarat*
- *King Bhumibol World Soil Day - 2020 Award*
- *Sangay Volcano: Ecuador*
- *Indonesia's Mt. Sinabung*

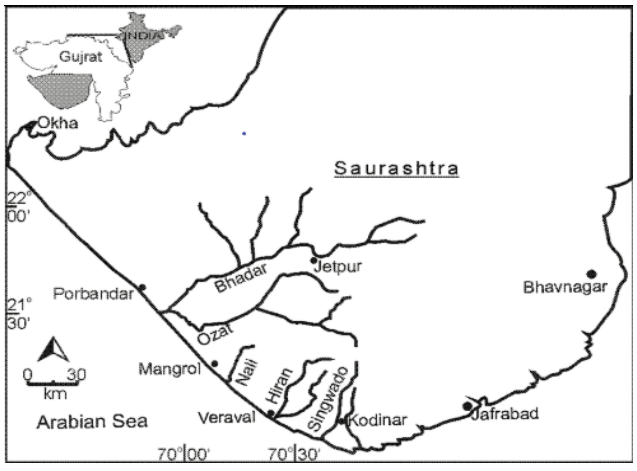
Bhadar Dam: Gujarat

Why in News

Recently, the **Dam Safety Organisation** of the Central Water Commission has recommended replacement of floodgates of Bhadar dam which were damaged in the flash flood of 2015.

Key Points

- **About Bhadar Dam:**
  - Bhadar dam is located in Rajkot and is second largest in Saurashtra region after Shetrunji dam.
  - Bhadar dam is on the Bhadar River in Saurashtra region in Gujarat.
- **Bhadar River:**
  - The Bhadar is one of the major rivers of Kathiawar (Saurashtra) peninsula in Gujarat.
  - It originates near Vaddi in Rajkot district at an elevation of 261 m above mean sea level.
  - It flows through the Saurashtra region and finally confluence with Arabian sea at Naviobandar (Porbandar).



  - The total length of this river is 198 km. It drains about 1/7th of the area of Saurashtra.

Flash Flood

- Flash floods are typically associated with short, high-intensity rainstorms.
- These are sudden surges in water levels during or following an intense spell of rain.
- These are highly localised events of short duration with a very high peak and usually have less than six hours between the occurrence of the rainfall and peak flood.
- The flood situation worsens in the presence of choked drainage lines or encroachments obstructing the natural flow of water.

Central Water Commission

- The Central Water Commission is the apex technical organisation in the country for development of water resources and is an attached organization of the Ministry of Water Resources.
- The Commission is responsible for initiating, coordinating and furthering, in consultation with the State Governments, the schemes for control, conservation, development and utilization of water resources throughout the country for the purpose of irrigation, flood management, power generation, navigation etc.

King Bhumibol World Soil Day - 2020 Award

Why in News

The **Indian Council of Agricultural Research (ICAR)** received the prestigious International **"King Bhumibol World Soil Day - 2020 Award" conferred by the Food and Agriculture Organization (FAO), Rome.**

Note:

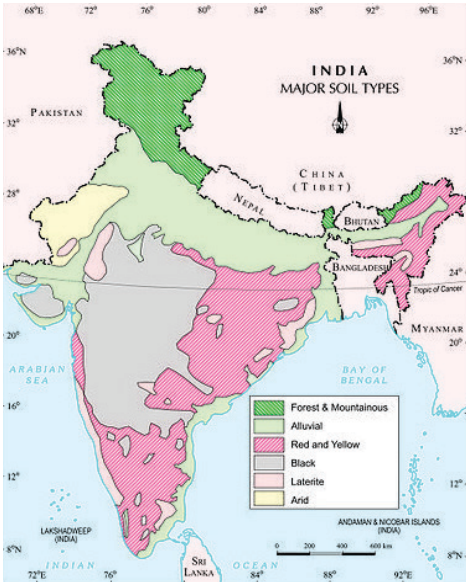
- The award was announced on the eve of **World Soil Day - 2020 (5th Dec 2020)** in view of the **ICAR's excellent contributions in "Soil Health Awareness"** on the theme "**Stop soil erosion, save our future"** (2019 theme).

Key Points

- **About King Bhumibol World Soil Day Award:**
  - Launched in 2018, the King Bhumibol World Soil Day Award **acknowledges individuals or institutions** that **raise public awareness of soils** by organising successful and influential World Soil Day celebrations.
  - The award, **sponsored by the Kingdom of Thailand**, is named after **King Bhumibol Adulyadej of Thailand** for his lifelong commitment to raising awareness of the importance of sustainable soil management and rehabilitation for food security, poverty alleviation and more.
  - The former winners of the Award include **Practical Action in Bangladesh in 2018** and the **Costa Rican Soil Science Society (AACS) in 2019**.
- **Indian Council of Agricultural Research (ICAR):**
  - It is an autonomous organisation under the **Department of Agricultural Research and Education (DARE)**, Ministry of Agriculture and Farmers Welfare.
  - It was established on **16th July 1929** and was formerly known as the **Imperial Council of Agricultural Research.**
  - It is headquartered at **New Delhi**.
  - ICAR is the organisation responsible for the coordination, guidance and management of agricultural research and education in India.
  - In this capacity, ICAR **oversees one of the largest networks of agricultural research and education institutes** in the world, covering the whole country in the fields of horticulture, soil science, fisheries and animal sciences among others.
- **Soil Degradation:**
  - Soil degradation is the **physical, chemical and biological decline in soil condition** caused by its **improper use or poor management**, usually for agricultural, industrial or urban purposes.
    - It can be the **loss of organic matter, decline in soil fertility,** and structural condition, **erosion, adverse changes in salinity, acidity or alkalinity**, and the effects of toxic chemicals, pollutants or excessive flooding.
  - The soil degradation is **caused by excessive pressure on land to meet the competing demands of the growing population** for food, fodder and fibre.
  - These processes, in turn, r**educe agricultural productivity leading** to social insecurity.
  - Emission of **greenhouse gases** to the atmosphere resulting in **climate change** and **global warming** could be the major reason for soil degradation.
  - Various human activities, such as the introduction of **large scale irrigation canals** and **faulty land use lead** to accelerated soil degradation through salinization, flooding, drought, erosion and waterlogging.
  - The other causes of degradation due to **direct/ indirect human interventions** are:
    - Deforestation and removal of natural vegetation
    - Overgrazing
    - Agriculture-related activities
    - Over exploitation of the vegetation for domestic purpose

Glinka World Soil Prize

- It is also conferred by FAO in line with soil. It is an annual award for dynamic change-makers dedicated to solving one of our world's most pressing environmental issues, i.e. **soil degradation**.
- It honours individuals and organizations whose leadership and activities have contributed, or are still contributing to the promotion of sustainable soil management and the protection of soil resources.



Note:

Sangay Volcano: Ecuador

Why in News

Recently, Ecuador's **Sangay volcano** erupted.

Key Points

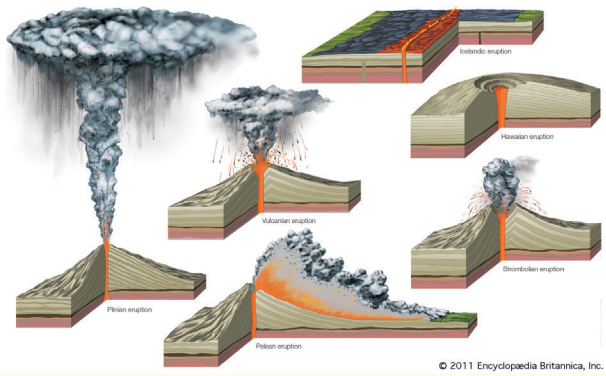
- **About Sangay Volcano:**
  - Sangay volcano is one of the **highest active volcanoes in the world** and one of **Ecuador's most active ones**.
  - Sangay is the southernmost **stratovolcano** (a volcano built up of **alternate layers of lava** and **ash**) in the northern volcanic zone of the Andes. It is 5230 m high.
    - The Andes is the **longest above water mountain range in the world** and boasts some of the highest peaks.
    - **Sangay National Park** is located in the central part of Ecuador on the Andes mountains' eastern side. It is a **world heritage site.**
- **Eruptions:**
  - The **earliest** report of a historical eruption was in **1628**. More or less continuous eruptions were reported from 1728 until 1916, and again from 1934 to the present. Sangay **has had frequent eruptions in historic times**, mostly of **strombolian type**.
- **Other Major Volcanoes of Ecuador:**
  - Ecuador, part of the **Pacific Rim's "Ring of Fire"** region, has eight volcanoes such as **Cotopaxi** (5,897m), **Cayambe** (5,790m), **Pichincha** (4,784m) etc. in its territory.

Volcanic Eruptions

- **About:**
  - Volcanic eruptions happen when **lava and gas are discharged from a volcanic vent**.
  - The most common consequences of this are population movements as large numbers of people are often forced to flee the moving lava flow.
- **Types:** Volcanic activity and volcanic areas are commonly divided into **six major types**:
  - **Icelandic:**
    - It is characterized by **effusions of molten basaltic lava** that flow from long, parallel fissures. Such outpourings **often build lava plateaus.**
  - **Hawaiian:**
    - It is **similar to the Icelandic variety**. In this case, however, fluid lava flows from a volcano's summit and **radial fissures** to form shield volcanoes, which are quite large and **have gentle slopes.**
  - **Strombolian:**
    - These involve **moderate bursts of expanding gases** that eject clots of incandescent lava in cyclical or nearly **continuous small eruptions.**
    - Because of such small frequent outbursts, **Stromboli volcano**, located on Stromboli Island off the northeast coast of **Italy**, has been called the **"lighthouse of the Mediterranean."**
  - **Vulcanian:**
    - It is named for **Vulcano Island** near Stromboli, generally involving **moderate explosions of gas laden with volcanic ash**. This mixture forms dark, turbulent eruption clouds that rapidly ascend and expand in convoluted shapes.
  - **Pelean:**
    - It is associated with explosive outbursts that generate **pyroclastic flows**, dense mixtures of **hot volcanic fragments and gas.**
    - The **fluidized slurries** produced by these eruptions are heavier than air but are of low viscosity and pour down valleys and slopes at great velocities. As a result, they are **extremely destructive.**
  - **Plinian:**
    - This type is an **intensely violent kind of volcanic eruption**. In this type of eruption, gases boiling out of gas-rich magma generate enormous and nearly continuous jetting blasts that core out the magma conduit and rip it apart.
    - The uprushing gases and volcanic fragments **resemble a gigantic rocket blast directed vertically upward**. Plinian **eruption clouds can rise into the stratosphere** and are sometimes continuously produced for several hours.

Note:

- **Lightning strikes** caused by a buildup of static electricity are common close to Plinian ash clouds, adding one more element of terror to the eruption.



Indonesia's Mt. Sinabung

Why in News

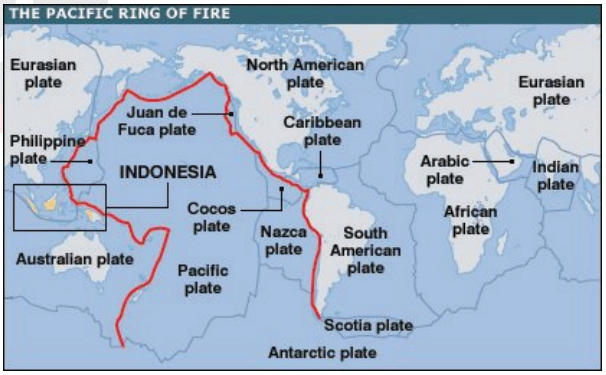
Recently, Mt. **Sinabung**, an active volcano on Indonesia's Sumatra island has erupted.

- Earlier, other volcanoes of Indonesia- **Merapi volcano** and **Semeru volcano**- had erupted.

Key Points

- **Mt. Sinabung:**
  - Mt. Sinabung (**2,600-metre**) is **located in Karo regency**, North Sumatra.

  - Sinabung is among more than **120 active volcanoes** in Indonesia, which is prone to seismic upheaval due to its location on the **Pacific Ring of Fire**.
  - The volcano was dormant for 400 years before exploding in **2010**.
    - It exploded again in **2014** ,**2016** and **2020**.
- **Ring of Fire:**
  - The Ring of Fire, also referred to as the **Circum-Pacific Belt**, is a path along the Pacific Ocean characterized by **active volcanoes and frequent earthquakes.**
  - It traces boundaries between several **tectonic plates**—including the Pacific, Cocos, Indian-Australian, Nazca, North American, and Philippine Plates.
  - The abundance of volcanoes and earthquakes along the Ring of Fire is caused by the amount of movement of tectonic plates in the area.
    - **75% of Earth's volcanoes** i.e. **more than 450 volcanoes** are located along the Ring of Fire. 90% of Earth's earthquakes occur along its path.



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Note:

Social Issues

Highlights

- *LGBTIQ Freedom Zone in EU*
- *Kala-azar Elimination: Bihar to Miss Deadline*
- *Pradhan Mantri Swasthya Suraksha Nidhi*
- *Parliamentary Standing Committee on Rural Development*
- *State of Water Supply in Schools and Anganwadis*
- *MT Swarna Krishna: International Women's Day*
- *First World Report on Hearing: WHO*
- *Right To Education*
- *Revising National Food Security Act, 2013: NITI Aayog*
- *Freedom in the World 2021 Report*
- *Challenges Faced by Nomadic Tribes*
- *Road to Gender Equality: UNDP*

LGBTIQ Freedom Zone in EU

Why in News

Recently, in response to the **backsliding of LGBTIQ rights** in **some EU countries**, **notably Poland and Hungary,** the **European Parliament** has declared the **European Union an "LGBTIQ Freedom Zone"**

- A majority of countries in the EU **(23/27)** recognise **same-sex unions,** with **16 legally recognising same-sex marriage.**
- **LGBTIQ** stands for **Lesbian**, **Gay, Bisexual, Transgender, Inter-sex and Queer.**

Key Points

- **Background:**
  - Same-sex relationships are **not legally recognised in Poland,** and the country already bans same-sex couples from adopting children together. However, as single people are permitted to adopt, some have managed to get around the ban by applying to adopt as single parents.
    - Now, Poland has come up with the proposal wherein a **person is liable to criminal offence** if he/she is found to be applying for adoption as a **single parent being in a same-sex relationship.**
    - LGBTIQ community in Poland is subject to **increased discrimination and attacks**, notably growing hate speech from **public authorities and elected officials.**
    - Since March 2019, more than 100 Polish regions, counties and municipalities have adopted resolutions declaring themselves to be free from **LGBTIQ "ideology".**
  - Recently, the **Parliament of Hungary** too, adopted constitutional amendments that **restrict the rights of LGBTIQ people**.
  - Hungary and Poland have been at **loggerheads** with the **European Commission (executive body of the European Union)** over an **array of issues**, mostly **centering around** abuses to the **rule of law**, the **independence of the judiciary and the rights of minorities.**
  - The **Hungarian and Poland** authorities have **described LGBTIQ principles** of governance as **"foreign" ideology**.
- **The EU Resolution:**
  - The **EU** Parliament **resolution declared** the entire European Union as an "**LGBTIQ Freedom Zone**".
  - The resolution provides **LGBTIQ** persons everywhere **in the EU** the **freedom to live and publicly show their sexual orientation** and **gender identity without fear of intolerance, discrimination or persecution**.
  - **It further urged the authorities** at all levels **of governance** across the **EU to protect** and **promote equality** and the **fundamental rights of all**, **including LGBTIQ persons**.
- **Global Scenario of LGBTIQ Community:**
  - **Ireland:** Ireland legalized same-sex marriage. The country, which had decriminalized homosexuality in 1993, became the **first country** to allow same-sex marriage at a national level by popular vote.
  - **USA:** US Supreme Court ruled that same-sex marriage was legal.

Note:

- **Nepal:** Nepal legalized homosexuality in 2007 and the new Constitution of the country gives many rights to the LGBTIQ community.

LGBT Community in India

- Even after section 377 of IPC was removed by the Supreme Court in **Navtej Singh Johar v. Union of India, 2018 case,** there is a wide gap in implementing a policy for the LGBTIQ community and making a better environment for them. Right now, they are facing many issues that are underlined below.
  - **Family:** The problem of sexual orientation and gender identity leads to fighting and family disruption. Lack of communication and misunderstanding between parents and their LGBTIQ children increases family conflict.
  - **Discrimination at Work Place:** LGBTIQ suffers from the socio-economic inequalities in large part due to discrimination in the workplace.
  - **Injustice:** Human rights and fundamental rights are applicable to all people, but the state has failed to create special legislation which protects the rights of LGBTIQ Minority community and to provide real justice to them.
  - **Health Issues:** Criminalisation of homosexuality leads to discrimination and results in LGBTQ people getting poor or inadequate access to services within the health system. It also creates barriers to both the availability and the ability to access HIV prevention, testing and treatment services.
  - **Isolation and Drug Abuse:** They gradually develop low self-esteem and low self-confidence and become isolated from friends and family. These people mostly get addicted to drugs, alcohol, and tobacco to get themselves relieved of stress and rejection and discrimination.

Related Legal Developments

- **Naz Foundation vs. Govt. of NCT of Delhi (2009):**
  - Delhi High Court struck off section 377, legalising consensual homosexual activities between adults.
- **Suresh Kumar Koushal Case (2013):**
  - SC overturned the previous judgment by Delhi High Court (2009) arguing that "plight of sexual minorities" could not be used as an argument for deciding constitutionality of law.
- **Justice K.S. Puttaswamy vs. Union of India (2017):**
  - SC ruled that Fundamental **Right to Privacy** is intrinsic to life and liberty and thus, comes under **Article 21 of the Indian constitution**. It held that **"sexual orientation is an essential attribute of privacy".**
- **Navtej Singh Johar vs. Union Of India (2018):**
  - Dismissed the position taken by SC in Suresh Kumar Koushal case (2013) and decriminalised homosexuality.
- **Shafin Jahan v. Asokan K.M. and others (2018):** The Supreme Court observed that choice of a partner is a person's **fundamental right**, and it can be a **same-sex partner.**
- **Transgender Persons (Protection of Rights) Bill, 2019:** The Parliament has passed the Transgender Persons (Protection of Rights) Bill, 2019 which has been criticised for its **poor understanding of gender and sexual identity.**
- **Same-sex Marriage:** In February, 2021, the **Central Government opposed same-sex marriage in Delhi High Court** stating that a marriage in India can be recognised only if it is between a "biological man" and a "biological woman" capable of producing children.

Kala-azar Elimination: Bihar to Miss Deadline

Why in News

The new cases of **Kala-azar or Visceral Leishmaniasis** have been reported in Bihar's Muzaffarpur district, casting **serious doubt** on the state government's efforts **to eradicate the disease in the state by 2022**.

- Bihar has already **missed the Kala-azar elimination target four times since 2010**.
- The first deadline was 2010, under the **National Health Programme**, followed by 2015. It was later extended to 2017 and 2020 due to the government's failure to eliminate Kala-azar.

Key Points

- **Kala-azar or Leishmaniasis:**
  - Visceral leishmaniasis, also known as kala-azar, is characterized by **irregular bouts of fever, substantial weight loss, swelling of the spleen and liver, and anaemia**.

Note:

- If the disease is not treated, the **fatality rate** in developing countries can be as high as **100% within 2 years**.
- It is a **Neglected Tropical Disease (NTD)** affecting almost 100 countries including India.
  - NTDs are a diverse group of **communicable diseases** that prevail in **tropical and subtropical conditions** in 149 countries.
- It is caused by a **parasite called Leishmania,** which is transmitted through the **bite of sand flies**.
- There are three types of leishmaniasis:
  - **Visceral leishmaniasis,** which affects multiple organs and is the most serious form of the disease.
  - **Cutaneous leishmaniasis**, which causes skin sores and is the most common form.
  - **Mucocutaneous leishmaniasis**, which causes skin and mucosal lesions.
- Visceral leishmaniasis, which is commonly known as Kala-azar in India, is fatal in over 95% of the cases, if left untreated.

➢ **Reasons for Missing the Deadline:**
- **Lack Direction:** Elimination programmes lack direction and **Kala-azar returns year after year**.
- **Widespread Poverty:** It was mostly the poor belonging to the **Dalits, Other Backward Communities and Muslims**, who were the main victims of the disease.

➢ **Trend of Decline:** However, there also has been a **trend of decline in the number of Kala-azar cases** in Bihar in the last few years.
- There were **23,084 cases in 2010**, and by **2020, there were 2,712 cases**, according to official data.

National Kala-azar Elimination Programme

➢ The National Health Policy-2002 set the goal of Kala-azar elimination in India by the year 2010 which was revised to 2015.

➢ Continuing focused activities with high political commitment, **India signed a Tripartite Memorandum of Understanding (MoU) with Bangladesh and Nepal** to achieve Kala-azar elimination from the South-East Asia Region (SEAR).

➢ **Elimination** is defined as reducing the annual incidence of Kala-azar to **less than 1 case per 10,000 population** at the sub-district level in India.

➢ Presently all programmatic activities are being implemented through the **National Vector Borne Disease Control Programme (NVBDCP)** which is an umbrella programme for prevention & control of vector borne diseases and is subsumed under **National Health Mission (NHM)**.

National Vector Borne Disease Control Programme

➢ NVBDCP is the central nodal agency for prevention and control of six vector borne diseases i.e. **Malaria**, **Dengue**, **Lymphatic Filariasis**, Kala-azar, **Japanese Encephalitis** and **Chikungunya** in India.

➢ It works under the Ministry of Health and Family Welfare.

Pradhan Mantri Swasthya Suraksha Nidhi

Why in News

The Union Cabinet has approved the **Pradhan Mantri Swasthya Suraksha Nidhi (PMSSN)** as **a single non-lapsable reserve fund for share of Health** from the proceeds of Health and Education Cess.

➢ The proceeds of **Health and Education Cess** are levied under **Section 136-b of Finance Act, 2007.**

Key Points

➢ **Salient Features of the Pradhan Mantri Swasthya Suraksha Nidhi (PMSSN):**
- It is a non-lapsable reserve fund for Health in the **Public Account.**
- Proceeds of share of health in the **Health and Education Cess** will be credited into PMSSN.
- Accruals into the PMSSN will be utilized for the flagship schemes of the Ministry of Health & Family Welfare namely,
  - **Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (AB-PMJAY).**
  - Ayushman Bharat - **Health and Wellness Centres (AB-HWCs).**
  - **National Health Mission.**
  - **Pradhan Mantri Swasthya Suraksha Yojana (PMSSY).**
  - Emergency & disaster preparedness and **responses during health emergencies.**

Note:

drishti

- Any **future programme/scheme** that targets to achieve progress towards **Sustainable Development Goals (SDGs)** and the targets set out in the **National Health Policy (NHP) 2017**.

- **Administration and maintenance** of the PMSSN is entrusted to the **Ministry of Health & Family Welfare (MoHFW).**
  - In any financial year, the expenditure on such schemes of the MoHFW would be initially incurred from the PMSSN and thereafter, from Gross Budgetary Support (GBS).

- **Benefits of PMSSN**:
  - **Enhanced access to universal & affordable health care** through availability of earmarked resources, while ensuring that the amount does not lapse at the end of financial year.
- **Significance of Spending on Healthcare:**
  - **Improved Developmental Outcomes**: From an economic standpoint, better health improves productivity, and reduces losses due to premature death, prolonged disability and early retirement.
  - **Enhance Opportunities**: One extra year of population life expectancy raises GDP per capita by 4%, investment in health creates millions of jobs, largely for women, through a much needed expansion of the health workforce.
- **Health and Education Cess**:
  - In the **Budget speech 2018**, the Finance Minister while announcing Ayushman Bharat Scheme, also announced **replacement of existing 3% Education Cess by 4% Health and Education Cess.**
    - It is collected with the aim of addressing the educational and healthcare needs of rural families in India.

Cess

- Different from the usual taxes and duties like excise and personal income tax, a **Cess is imposed as an additional tax besides the existing tax (tax on tax)** with a purpose of raising funds for a specific task.
- The Union government is empowered to raise revenue through a gamut of levies, including taxes (both direct and indirect), surcharges, fees and cess.
  - A cess, generally paid by everyday public, is added to their basic tax liability paid as part of total tax paid.
  - **Article 270** of the Constitution allows **cess to be excluded from the purview of the divisible pool of taxes** that the Union government must share with the States.
- Cess collected for a particular purpose **cannot be used for or diverted to other purposes.** A particular cess continues to be levied till the time the government collects enough funds for the purpose that it was introduced for.
  - For example, the **Swachh Bharat cess** (abolished in 2017) was levied by the government for cleanliness activities.
- **Difference between Surcharge and Cess**:
  - **Surcharge** is **an additional charge or tax levied on existing tax**. The main surcharges are on personal income tax (on high income slabs and on super rich) and on corporate income tax.
  - Despite **both are not shareable with state governments**, surcharge can be kept with the **Consolidated Fund of India (CFI)** and spent like any other taxes, the cess should be kept as a separate fund after allocating to CFI and can be spent only for a specific purpose.
  - A **surcharge is discussed under Article 270** and **271** of the Indian Constitution.
  - Unlike a cess, which is meant to raise revenue for a temporary need, **surcharge is usually permanent in nature.**

Parliamentary Standing Committee on Rural Development

Why in News

The Centre government must **increase the amount of pensions** provided for **poor senior citizens, widows and disabled people**, said the **Parliamentary Standing Committee** on Rural Development.

Key Points

- **Issues Pointed Out by the Parliamentary Standing Committee:**
  - The panel pointed out that it had **previously proposed the increase of the miniscule pensions**

Note:

in its reports and slammed the **government's "laxity in raising the amount".**

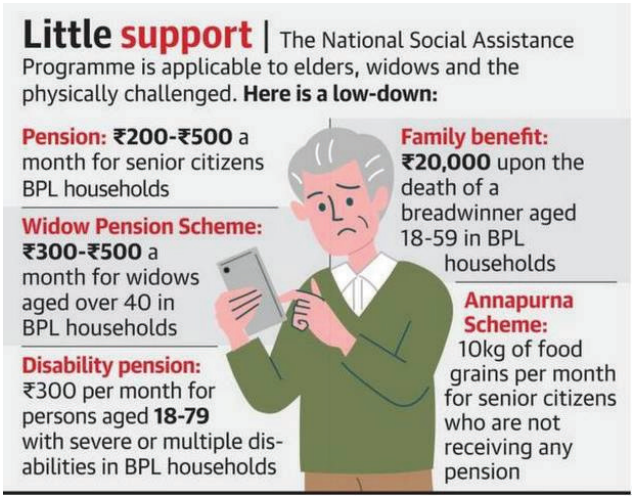
- Also, criticised the implementation of **National Social Assistance Programme (NSAP)** in reaching out to the poor and downtrodden section of the society.
  - Pointed out the meagre amount of assistance ranging from **Rs. 200 to Rs. 500 per month** under the different components of this Scheme.
- Noted **the callous approach of the State Governments** in the proper implementation of the provision of unemployment allowance.
- Pulled up the **Department of Rural Development (DoRD)** for issues in implementation of the flagship **MGNREGA scheme.**

➢ **Issues in the MGNREGA Scheme Observed by the Committee:**

- **Lack of Work Supply:** That too when there was an **increase in the demand** for work under MGNREGA due to economic distress caused by **Covid-19 pandemic**.
- **Delay in the Release of Funds:** It is a huge discouraging aspect and does not go in consonance with the underlying spirit of the scheme.
- **Disparity in Wages in Different States**: The committee noted how it is possible that a single scheme having the provision of h**undred days of guaranteed work** to willing people from the rural settings can have different yardstick when it comes to the payment modalities across the length and breadth of the country.
  - It is against the Constitutional provision of **equal pay for equal work.**

➢ **National Social Assistance Programme (NSAP):**

- The National Social Assistance Programme (NSAP) is a welfare programme being administered by the **Ministry of Rural Development**.
- This programme is being implemented in **rural as well as urban areas**.
- The programme was first **launched on 15th August 1995** as a **Centrally Sponsored Scheme**. It was brought within the umbrella of '**Core of Core' schemes** of the Centrally Sponsored Schemes (CSS) in 2016.
- Currently, it has **five components** namely:
  - **Indira Gandhi National Old Age Pension Scheme (IGNOAPS)** - since inception of NSAP in 1995.


Little support | The National Social Assistance Programme is applicable to elders, widows and the physically challenged. Here is a low-down:
Pension: ₹200-₹500 a month for senior citizens BPL households
Widow Pension Scheme: ₹300-₹500 a month for widows aged over 40 in BPL households
Disability pension: ₹300 per month for persons aged 18-79 with severe or multiple disabilities in BPL households
Family benefit: ₹20,000 upon the death of a breadwinner aged 18-59 in BPL households
Annapurna Scheme: 10kg of food grains per month for senior citizens who are not receiving any pension

- **National Family Benefit Scheme (NFBS)** - 1995.
- **Annapurna Scheme** - launched in 2000.
- **Indira Gandhi National Widow Pension Scheme (IGNWPS)** - launched in 2009.
- **Indira Gandhi National Disability Pension Scheme** - launched in 2009.

- The **National Maternity Benefit Scheme (NMBS)** was part of NSAP and was subsequently transferred from the Ministry of Rural development to the Ministry of Health and Family Welfare.

Important Schemes of Department of Rural Development

- Mahatma Gandhi National Rural Employment Guarantee Act
- **Pradhan Mantri Awaas Yojana - Gramin (PMAY-G)**
- **Pradhan Mantri Gram Sadak Yojana (PMGSY)**
- **Deendayal Antyodaya Yojana - National Rural Livelihood Mission (DAY-NRLM)**
- National Social Assistance Programme (NSAP)
- **Shyama Prasad Mukherjee Rurban Mission (SPMRM)**
- **Saansad Aadarsh Gram Yojana (SAGY)**

State of Water Supply in Schools and Anganwadis

Why in News

According to information provided to the **Parliamentary Standing Committee on Water Resources,** only half of government schools and **anganwadis** have tap water supply, despite a **100-day campaign for 100%**

Note:

coverage being launched by the **Jal Shakti Ministry** in October 2020.

- The Committee also noted the progress of the flagship **Jal Jeevan Mission.**

Key Points

- **About the Campaign:**
  - The campaign aims to provide **potable piped water supply** for **drinking and cooking purposes** and tap water for **hand washing** and in **toilets** in every school, anganwadi and ashramshala or residential tribal school.
  - It was launched on **2nd October, 2020 (Gandhi Jayanti).**
  - The 100-day period should have ended on 10th January, 2021.
  - However, some States/ UTs have indicated that they need more time to complete the task and sustain the efforts. Therefore, the campaign has been **extended till 31st March, 2021.**
- **Related Observations:**
  - As of now, only **48.5% of anganwadis** and **53.3% of schools** had **tap water supply.**
  - **Less than 8% of schools in Uttar Pradesh and 11% in West Bengal** have it, while it is available in **only 2-6% of anganwadis in Assam, Jharkhand, U.P., Chhattisgarh and Bengal.**

Basic need unmet

While seven States in the country have 100% tap water coverage in schools, three have abysmally low coverage of less than 15%

States with 100% tap-water coverage

State
Andhra Pradesh
Goa
Tamil Nadu
Haryana
Himachal Pradesh
Telangana
Punjab

Least coverage

State	% of schools with tap water supply
Uttar Pradesh	7.93
West Bengal	10.89
Jharkhand	12.99

  - **Seven States** - Andhra Pradesh, Goa, Haryana, Himachal Pradesh, Tamil Nadu, Telangana and Punjab - **achieved 100% coverage.**
  - Around 1.82 lakh **grey water management structures** and 1.42 lakh **rainwater harvesting structures** were also constructed in schools and anganwadi centres.
- **Health Issues of Children Emanating from Contaminated Water:**
  - Children are more susceptible to **water borne diseases (Diarrhea, Cholera, Typhoid)**, more so, when there is also a **need for repeated washing of hands as a precautionary measure during the pandemic.**
  - Other **nutritional issues and the health hazards** emerge in children from on account of lack of potable drinking water.
- **About Jal Jeevan Mission:**
  - **Jal Jeevan Mission (JJM)** envisages supply of **55 litres of water per person per day to every rural household** through **Functional Household Tap Connections (FHTC) by 2024.**
  - JJM focuses on integrated demand and supply-side management of water at the local level.
    - Creation of **local infrastructure** for source sustainability measures as mandatory elements, like **rainwater harvesting, groundwater recharge and management of household wastewater for reuse**, would be undertaken in convergence with other government programmes/schemes.
  - The Mission is based on a **community approach to water** and includes extensive Information, **Education and Communication** as a key component of the mission.
  - JJM looks to create a **jan andolan for water**, thereby making it everyone's priority.
  - **Funding Pattern:** The fund sharing pattern between the Centre and states is **90:10 for Himalayan and North-Eastern States**, **50:50 for other states**, and **100% for Union Territories**.
  - In the **Budget 2021-22, Jal Jeevan Mission (Urban)** has been announced under the **Housing and Urban Affairs Ministry to provide universal coverage of water supply to all households** through functional taps in all statutory towns in accordance with **Sustainable Development Goal- 6**.
- **Suggestions:**
  - The Standing Committee noted that **mere provision** of tap connection without ensuring assured availability of water in the pipeline **would not serve the purpose** and would defeat the very objective of JJM.

Note:

- It called for **real-time monitoring of water supply at the district level**.
- The centre government should take measures to set up **water purification or reverse osmosis (RO)** plants on an urgent basis so that children do not suffer due to contamination of drinking water.

Grey water

- Grey water is defined as wastewater that is produced from household processes (e.g. washing dishes, laundry and bathing).
- Grey water can contain harmful bacteria and even faecal matter that contaminates soil and groundwater.

MT Swarna Krishna: International Women's Day

Why in News

The Union Minister of Ports, Shipping and Waterways has flagged off an all-women crew onboard **Shipping Corporation of India (SCI)** vessel **MT Swarna Krishna**.

- The initiative is a part of SCI's ongoing **Diamond Jubilee celebrations** and also to commemorate the **International Women's Day (8th March)**.
- This is the **first time in the world maritime history** that a cargo ship is being sailed by all women officers.

Shipping Corporation of India

- **About:**
  - SCI was established on **2nd October 1961** by the amalgamation of Eastern Shipping Corporation and Western Shipping Corporation.
    - Two more shipping companies, Jayanti Shipping Company and Mogul Lines Limited, were merged with SCI in 1973 and 1986 respectively.
  - It is a Government of **India Public Sector Enterprise**. It operates and manages vessels that service both national and international lines.
- **Headquarters**: Mumbai.
- **Navratna status**: SCI was also awarded the prestigious **"Navratna"** status by Indian Government in 2008.
- **Disinvestment:** In November 2019, the Union Cabinet had accorded ''in-principle'' approval for strategic disinvestment of Government of India's shareholding of 63.75% in SCI along with transfer of management control to a strategic buyer.

Key Points

- **International Women's Day:**
  - **About:** It is celebrated **annually on 8th March.** It includes:
    - Celebration of women's achievements,
    - raising awareness about women's equality,
    - lobbying for accelerated gender parity,
    - fundraising for female-focused charities, etc.
  - **Brief History**:
    - Women's Day was **first celebrated back in 1911 by Clara Zetkin,** who was a German. The **roots of the celebration had been in the labour movement.**
    - It was only **in 1913, however, that the celebrations were shifted to 8th March**, and it has remained that way ever since.
    - International Women's Day was **celebrated for the first time by the United Nations in 1975.**
      - In December 1977, the General Assembly adopted a resolution proclaiming a **United Nations Day for Women's Rights and International Peace** to be observed on any day of the year by Member States, in accordance with their historical and national traditions.
- **2021 Theme**:
  - The **UN** has decided to keep the theme as **"Women in leadership: Achieving an equal future in a Covid-19 world"**.
  - Meanwhile, some groups of women have called for the theme to be "**Choose to challenge"**, claiming that the world only became alert about such issues if it was challenged.
- **Related Data:**
  - According to the UN, l**egal restrictions have kept 2.7 billion women from accessing the same choice of jobs as men.**
    - As of 2019, **less than 25% of parliamentarians were women.**
    - **One in three women** experience **gender-based violence.**
  - In 2019, before the Covid-19 pandemic, **female labor force participation in India was 20.5%**, according to ILO estimates. Comparable estimates for males was 76%.
  - In the **World Economic Forum's Global Gender Gap Index** (which measures progress towards gender

Note:

parity), **India slipped to 112th place in 2019-20**, simply because over 70 lakh Indian women have dropped out of work.

- **Safeguards for Women in India:**
  - **Constitutional Safeguards:**
    - **Fundamental Rights**: It guarantees all Indians the right to equality (Article 14), no discrimination by the State on the basis of gender (Article 15(1)) and special provisions to be made by the State in favour of women (Article 15(3)).
    - **Fundamental Duties**: The Constitution imposes a fundamental duty on every citizen through **Articles 51 (A)(e)** to renounce practices derogatory to dignity of women.
  - **Legislative Framework:**
    - **Protection of Women from Domestic Violence Act, 2005**: It provides victims of domestic violence with a means for practical remedy through prosecution.
    - **The Dowry Prohibition Act, 1961**: It prohibits the request, payment or acceptance of a dowry.
    - **The Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013**: This legislative act seeks to protect women from sexual harassment at their place of work.
  - **Related Schemes:** Women Technology Park, **Gender Advancement for Transforming Institutions (GATI)**, etc.
- **World Conferences on Women:**
  - The United Nations has organized 4 **world conferences on women**. These took place in
    - Mexico City,1975
    - Copenhagen,1980
    - Nairobi,1985
    - Beijing,1995
  - The 4th **World Conference on Women (WCW)**, held in Beijing, was one of the largest ever gatherings of the United Nations, and a critical turning point in the world's focus on gender equality and the empowerment of women.
    - The **Beijing Declaration** is an agenda for women's empowerment and considered the key global policy document on gender equality.
    - It sets strategic objectives and actions for the advancement of women and the achievement of gender equality in 12 critical areas of concern like women and health, women in power and decision-making, the girl-child, women and the environment.
- Recently, the United Nations Development Programme (UNDP) has proposed a **Temporary Basic Income (TBI)** for poor women in developing countries to help them cope with the effects of the coronavirus pandemic and alleviate the economic pressures they face every day.

First World Report on Hearing: WHO

Why in News

The **First World Report on Hearing** was released by the **World Health Organization (WHO)** - a day ahead of **World Hearing Day on 3rd March**.

- The Report underlines the need to rapidly step up efforts to prevent and address hearing loss by investing and expanding access to ear and hearing care services.

Key Points

- **Findings:**
  - Nearly 2.5 billion people worldwide – or **1 in 4 people** – will be living with **some degree of hearing loss by 2050.**
  - At least **700 million of these people will require access to ear and hearing care** and other rehabilitation services unless action is taken.
- **Issues:**
  - **Adverse Health Effects:**
    - Untreated hearing loss can have a devastating impact on **people's ability to communicate, to study and to earn a living.** It can also impact **people's mental health and their ability to sustain relationships.**
  - **Lack of Specialists among Low-Income Countries:**
    - About 78% have fewer than one Ear, Nose and Throat (ENT) specialist per million population.
    - 93% have fewer than one audiologist per million.
    - Only 17% have one or more speech therapists per million.
    - 50% have one or more teachers for the deaf per million.
- **Hearing Impairment in India:**
  - **About:**

Note:

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- **Over 27,000 children are born deaf every year** in India. Hearing impairment or loss is often neglected as it cannot be seen and in most cases the diagnosis is delayed.

❍ **Causes:**

- There are many **children** who can benefit through advanced hearing technology but are **missed out because of low awareness** around hearing issues in babies.
- One major reason is the **unavailability of newborn screening programmes** at birth and low awareness among parents.

❍ **Government Initiative:**

- **National Programme for the Prevention & Control of Deafness (NPPCD)** under **National Health Mission** aims:
  - To **prevent the avoidable hearing loss** on account of disease or injury.
  - **Early identification, diagnosis** and treatment of ear problems responsible for hearing loss and deafness.
  - To **medically rehabilitate persons** of all age groups, suffering with deafness.
  - To **strengthen the existing inter-sectoral linkages** for continuity of the rehabilitation programme, for persons with deafness.
  - **To develop institutional capacity for ear care services** by providing support for equipment and material and training personnel.

❍ **Required Interventions:**

- Holding screening programmes can help in early diagnosis, which in turn will lead to early treatment.
- The **Universal Newborn Hearing Screening (UNHS)** helps in early detection of congenital hearing loss and this test is vital to detect hearing impairment in newborn babies and to ensure early intervention.
  - While **UNHS screening is mandatory in developed countries**, it is not included in the list of mandatory health screening procedures for newborns in India, except Kerala.

➢ **Suggested Strategies:**

❍ **Integration of Hearing Care into Primary Healthcare:** This will close the present patient-doctor gap.

❍ **Clinical Screening at Strategic Points in Life:** To ensure early identification of any loss of hearing and ear diseases.

❍ **Promoting Hearing Assistive Technology and Services:** It includes measures such as captioning and sign language interpretation which can further improve access to communication and education for those with hearing loss.

❍ **Increasing Investments:** WHO calculates that governments can expect a return of nearly USD 16 for every USD 1 invested.

❍ **Increasing Immunisation:** In children, almost 60% of hearing loss can be prevented through measures such as immunisation for prevention of rubella and meningitis, improved maternal and neonatal care, and screening for, and early management of, otitis media – inflammatory diseases of the middle ear.

❍ **Maintaining Hygiene:** In adults, noise control, safe listening and surveillance of ototoxic (having a toxic effect on the ear) medicines together with good ear hygiene can help maintain good hearing and reduce the potential for hearing loss.

Right To Education

Why in News

Delhi High Court asked the Central government to respond to a petition against the authorities for **not deciding upon extension of free education under the Right To Education (RTE) Act to children of Economically Weaker Section (EWS) beyond Class 8 and up to Class 12 in school**.

Key Points

➢ **Constitutional Provisions for Right To Education:**

❍ Originally Part IV of Indian Constitution, **Article 45 and Article 39 (f) of DPSP**, had a provision for state funded as well as equitable and accessible education.

❍ The first official document on the Right to Education was the **Ramamurti Committee Report** in 1990.

❍ In 1993, the Supreme Court's landmark judgment in the ***Unnikrishnan JP vs State of Andhra Pradesh & Others*** held that **Education is a Fundamental right flowing from Article 21.**

❍ **Tapas Majumdar Committee (1999)** was set up, which encompassed insertion of Article 21A.

Note:

- The **86th Constitutional Amendment in 2002**, provided Right to Education as a fundamental right in Part-III of the Constitution.
  - It **inserted Article 21A** which made Right to Education a fundamental right for children between 6-14 years.
  - It provided for a follow-up legislation **Right to Education Act 2009**.

➢ **Feature of Right to Education (RTE) Act, 2009:**

- The RTE Act aims to provide primary education to all children **aged 6 to 14 years.**
- **Section 12(1)(c)** mandates that **non-minority private unaided schools should reserve at least 25% of seats in entry-level grades for children from economically weaker** and disadvantaged backgrounds.
- It also makes **provisions for a non-admitted child** to be admitted to an age appropriate class.
- It also states about **sharing of financial and other responsibilities** between the Central and State Governments.
  - Education in the Indian constitution is **a concurrent issue** and both centre and states can legislate on the issue.
- It lays down the **norms and standards** related to: Pupil Teacher Ratios (PTRs), Buildings and infrastructure, School-working days, Teacher-working hours.
- It also p**rovides for prohibition of deployment of teachers for non-educational wor**k, other than decennial census, elections to local authority, state legislatures and parliament, and disaster relief.
- It provides for the **appointment of teachers with the requisite entry and academic qualifications.**
- It **prohibits**
  - Physical punishment and mental harassment.
  - Screening procedures for admission of children.
  - Capitation fee.
  - Private tuition by teachers.
  - Running of schools without recognition.
- It focuses on making the child free of fear, trauma and anxiety through a system of **child friendly and child centred learning.**

➢ **Argument for Extension of Free Education under RTE beyond Class 8 for EWS:**

- The **parents of children are required to pay hefty fees to unaided private schools in classes 9** and onwards which they can not afford.
- Changing school from unaided private to government after class 8 **may affect the children's state of mind and education** and thus, an extension of the RTE benefits will ensure continuity in the education.

Reservation for Economically Weaker Section in Higher Education

➢ **103rd Constitutional Amendment Act** introduced an economic reservation (10% quota) in jobs and admissions in education institutes for Economically Weaker Sections (EWS) by amending Articles 15 and 16.

➢ It inserted **Article 15 (6) and Article 16 (6).**

➢ It was enacted to promote the **welfare of the poor** not covered by the 50% reservation policy for SCs, STs and Socially and Educationally Backward Classes (SEBC).

➢ It enables both Centre and the states to provide reservation to the EWS of society.

Revising National Food Security Act, 2013: NITI Aayog

Why in News

NITI Aayog, through a discussion paper, has recommended reducing the rural and urban coverage under the **National Food Security Act (NFSA), 2013**, to 60% and 40%, respectively.

➢ It has **also proposed a revision of beneficiaries as per the latest population** which is currently being done through Census- 2011.

National Food Security Act (NFSA), 2013

➢ **Notified on**: 10th September, 2013.

➢ **Objective**: To provide **for food and nutritional security** in the human life cycle approach, by ensuring access to adequate quantities of quality food at affordable prices to people to live a life with dignity.

➢ **Coverage**: 75% of the rural population and upto 50% of the urban population for receiving subsidized foodgrains under **Targeted Public Distribution System (TPDS)**.

- Overall, NFSA caters to **67% of the total population.**

Note:

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- **Eligibility**:
  - **Priority Households** to be covered under TPDS, according to guidelines by the State government.
  - Households covered under existing **Antyodaya Anna Yojana.**
- **Provisions:**
  - 5 Kgs of foodgrains per person per month at Rs. 3/2/1 per Kg for rice/wheat/coarse grains.
  - The existing AAY household will continue to receive 35 Kgs of foodgrains per household per month.
  - Meal and maternity benefit of not less than Rs. 6,000 to pregnant women and lactating mothers during pregnancy and six months after the child birth.
  - Meals for children upto 14 years of age.
  - Food security allowance to beneficiaries in case of non-supply of entitled foodgrains or meals.
  - Setting up of grievance redressal mechanisms at the district and state level.

Key Points

- **Number of Beneficiaries at Present:**
  - Approximately 2.37 crore households or **9.01 crore persons,** as of February 2021 under **Antyodaya Anna Yojana.**
  - While approximately **70.35 crore persons** are under the priority households.
- **Significance of the NITI Aayog's Recommendations:**
  - If the **rural-urban coverage ratio remains the same** (67% of all population), then the total number of people covered will increase from the existing 81.35 crore to 89.52 crore - an increase of 8.17 crore (based on the projected 2020 population).
    - This will **result in an additional subsidy requirement of Rs. 14,800 crore.**
  - If the **national coverage ratio is revised downward**, the Centre can save up to Rs. 47,229 crore.
  - This amount of **savings can be utilised by the Government in other important areas of concern** such as health and education.
- **Challenges of the Move:**
  - In the times of Covid-19 pandemic, it will be **a double burden (Unemployment and Food insecurity issues)** on the poor section of the society.
  - The move **may be opposed by some of the states.**
- **Other Recommendations:**
  - HLC (High Level Committee) under **Shanta Kumar** had recommended reducing the coverage ratio from 67% of the population to 40%.
    - According to it, 67% coverage of the population is on the much higher side, and should be brought down to around 40%, which will comfortably cover BPL families and some even above that.
  - The **Economic Survey- 2020-21** had recommended a revision of the **Central Issue Prices (CIP)** of foodgrains released from the central pool, which have remained unchanged for the past several years.

Central Issue Prices

- Foodgrains under NFSA are made available to beneficiaries at subsidized prices.
- The centre procures food grains from farmers at a **Minimum support price (MSP)** and **sells it to states at central issue prices**.
- The prices are fixed by the Central Government from time to time, but not exceeding MSP.

Freedom in the World 2021 Report

Why in News

The **Freedom in the World 2021** report has down-graded India's status from **'Free' to 'Partly Free'**.

- Pointing to a decline in global democracy over the last 15 years, the report said that nearly **75% of the world's population lived in a country that faced deterioration** over the last year.
- The **most free countries** in the world, with a score of 100, are **Finland, Norway and Sweden**, while the **least free with a score of 1 are Tibet and Syria.**

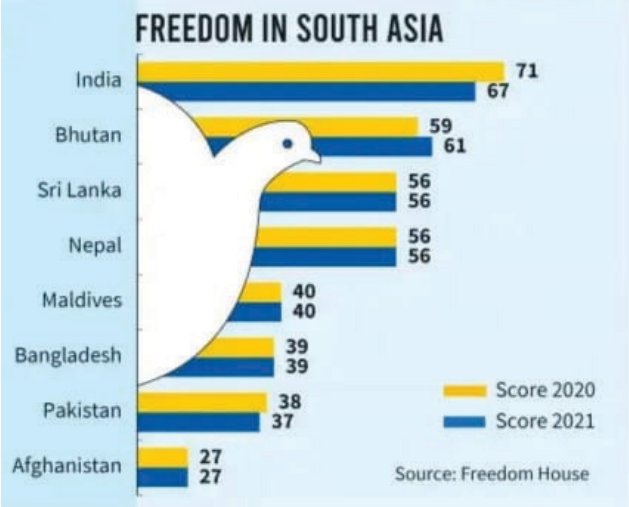
Key Points

- **About the Report:**
  - **Published by**:
    - USA based human rights watchdog **Freedom House**, which is largely **funded through USA government grants**, has been **tracking the course of democracy since 1941.**
  - **Scores are Based on:**
    - **Political rights** indicators such as the electoral

Note:

process, political pluralism and participation and government functioning.

- **Civil liberties** indicators related to freedom of expression and belief, associational and organisational rights, the rule of law and personal autonomy and individual rights.
- Countries are declared as **"free", "partly free" or "not free".**



➢ **India's Score:**
  ❍ India's **score was 67, a drop from 71/100 from last year** (reflecting 2019 data) downgrading it from the free category last year (i.e., based on 2020 data).

➢ **Reasons for India's Fall:**
  ❍ **Freedom of Media:**
    - Attacks on press freedom have escalated dramatically, and reporting has become significantly less ambitious in recent years, citing the use of **security, defamation, sedition and contempt of court** laws to quiet critical media voices.
  ❍ **Elevation of Hindu Nationalist Interests:**
    - India appears to have abandoned its potential to serve as a global democratic leader, **elevating narrow Hindu nationalist interests** at the expense of its founding values of inclusion and equal rights for all.
  ❍ **Internet Freedom:**
    - In a year when **social media** censorship has been hotly seated, while the government shut down **Internet connectivity in Kashmir** as well as on Delhi's borders, **India's Internet freedom score dropped to just 51.**
  ❍ **Covid Response:**
    - Response to **Covid-19** included a hamfisted lockdown that resulted in the dangerous and unplanned **displacement of millions of internal migrant workers.**
    - It added that **Muslims were disproportionately blamed** for the spread of the virus and faced attacks by vigilante mobs.
  ❍ **Crackdown on Protesters:**
    - The government intensified its crackdown on protesters opposed to a discriminatory **citizenship law** and arrested dozens of journalists who aired criticism of the official pandemic response.
  ❍ **Laws:**
    - **Uttar Pradesh's law prohibiting forced religious conversion** through interfaith marriage was also listed as a concern.

Challenges Faced by Nomadic Tribes

Why in News

In a written reply in Rajya Sabha, the **Minister of State for Social Justice and Empowerment** stated that a **Development and Welfare Board for Denotified, Nomadic and Semi-Nomadic Communities (DWBDNCs)** was constituted for development and welfare of **Denotified, Nomadic and Semi-Nomadic Communities in 2019.**

➢ The welfare board was constituted for a period of **three years extendable upto 5 years.**

Key Points

➢ **Challenges Faced by Nomadic Tribes:**
  ❍ There are nearly 1,500 nomadic and semi-nomadic tribes and 198 denotified tribes, comprising 15 crore Indians, according to the **Renke Commission, 2008**.
    - These tribes remain **socially and economically marginalised** even now, **depriving** many of them of **basic human rights**.
  ❍ The most pressing issue is of their **identity**.
  ❍ **Lack of Basic Infrastructure Facilities:** Like drinking water, shelter, and sanitation facilities are not available to the communities. Healthcare and education facilities are also not available.

Note:

- **Bad Treatment by Local Administration:** Due to the stigma of Criminals bestowed upon them in the past, they are still treated criminals and tortured by the local administration and police.
- **Lack of Social Security Cover:** Since they are on move frequently, they do not have a permanent settlement. As a result, they lack social security cover and are **not issued Ration Card, Aadhar Card**, etc. and hence they are not getting benefits under the government welfare schemes.
- The **caste categorization is not very clear** for these communities, in some states some of the communities are included under the SC category, in some other states they are included under OBCs.
  - However, most of the groups from these communities do not have caste certificates and hence are not able to avail the benefits of government welfare programs.

➢ **DWBDNCs Responsibilities:**

- To **formulate and implement Welfare and Development programmes**, as required, for Denotified, Nomadic and Semi-Nomadic Communities (DNCs).
- To **identify the locations/areas** where these communities are densely populated.
- To **assess and identify gaps** in accessing existing programmes and entitlements and to collaborate with Ministries/implementing agencies to ensure that ongoing programmes meet the special requirements of DNCs.
- To **monitor and evaluate the progress of the schemes** of the Government of India and the States/UTs with reference to DNCs.

➢ **Schemes for Denotified, Nomadic and Semi-Nomadic Communities:**

- **Dr. Ambedkar Pre-Matric and Post-Matric Scholarship for DNTs**:
  - This **Centrally Sponsored Scheme** was launched in 2014-15 for the **welfare of those DNT (**Denotified, Nomadic and Semi-Nomadic Tribes**) students** who are not covered under SC, ST or OBC.
  - The income ceiling for eligibility is Rs. 2.00 lakh per annum.
  - The scheme is implemented through State Governments/UT Administrations. The **expenditure is shared** between the **Centre and the States** in the ratio of **75:25**.
  - The scheme is helpful in spreading education amongst DNT children especially the girl child.
- **Nanaji Deshmukh Scheme of Construction of Hostels for DNT Boys and Girls:**
  - This **Centrally Sponsored Scheme**, launched in 2014-15, is implemented through State Governments/ UT Administrations/ Central Universities.
  - The aim of the scheme is to provide **hostel facilities to those DNT students**; who are not covered under SC, ST or OBC; to enable them to pursue higher education.
  - The income ceiling for eligibility is Rs. 2.00 lakh per annum.
  - The Central Government provides a maximum of 500 seats per annum throughout the country.
  - The expenditure is shared between the Centre and the States in the ratio of 75:25.

Denotified, Nomadic and Semi-Nomadic Communities

➢ Denotified tribes are those that were notified under the **Criminal Tribes Acts** enforced during British Rule, whereby entire **populations were branded criminals by birth**.
- In 1952, the Act was repealed and the communities were de-notified.

➢ The **Nomadic tribes maintain constant geographical mobility** while **semi-nomads are those who are on the move but return to fixed habitations once a year**, mainly for occupational reasons.
- The distinction between nomadic and semi-nomadic do not involve distinguishable ethnic categories or social groups, it rather describes the degree of mobility practiced by them.

Road to Gender Equality: UNDP

Why in News

Recently, the **United Nations Development Programme (UNDP)** in its latest report named **"Protecting Women's Livelihoods in Times of Pandemic: Temporary Basic Income and the Road to Gender Equality"** has proposed a **Temporary Basic Income (TBI)** for poor women in developing countries.

➢ The proposal comes ahead of the **International Women's Day (8th march)** celebrations.

Note:

Key Points

- **Gender Inequality**:
  - **Unpaid Labor**:
    - On an average, **women spend 2.4 more hours per day than men on unpaid care and domestic work**.
    - Among people who participate in the paid economy, **women spend an average of four hours more per day** than men on paid and unpaid work combined.
  - **Discriminative Policies**:
    - Beyond complex gendered norms, some of the economic vulnerability imposed on women also comes from **policy and political decisions** that have persistently **deprived them of compensation in the form of equal pay**, **paid maternity leave, universal health, unemployment and care benefits.**
  - **Effect of Covid:**
    - Women have been hit harder than men by the **pandemic**, losing income and leaving the labour market at a greater rate.
      - This vulnerability is due to **gender inequality**.
    - Women are 25% more likely than men to live in extreme poverty.
    - Only one in ten countries and territories, however, have policies addressing women's economic security needs, according to the **Covid-19 Global Gender Response Tracker**.
      - Covid-19 Global Gender Response Tracker is an initiative of **UNDP** and **UN Women** which shows that social protection and jobs response to the pandemic has largely overlooked women's needs.
- **Major Proposals:**
  - **Temporary Basic Income:**
    - A **TBI** for millions of the world's poorest women, **to help them cope with the effects of the coronavirus pandemic** and alleviate the economic pressures they face every day.
    - A monthly investment of **0.07-0.31%** of a developing countries' **Gross Domestic Product (GDP)** could **provide reliable financial security to 613 million working-aged women living in poverty.**
    - The benefits of such a meaningful investment could not only help women and their families absorb the shock of the pandemic, but also **empower women to make independent decisions about money, livelihoods and life choices**.
  - **Policies Favouring Women**:
    - A set of policies should be aimed at recognising the needs of all workers, men and women, to **reconcile their household obligations with paid work** and allow for a more even distribution of care and domestic work by institutionally acknowledging it as a shared responsibility.
    - Such policies include **guaranteed paid maternity leave, extended paternity leave** and the enforcement of its take-up.
    - Establishing flexible arrangements such as **part-time work** or the provision of **breastfeeding facilities** in the workplace that allow parents to return to the workforce shortly after having a child should also be encouraged.
  - **Reform Labour Market:**
    - Beyond reconciling paid work and family responsibilities, governments must address other sources of the gender pay gap such as **horizontal and vertical segregation in the labour market**. The response should include **anti-discrimination laws and affirmative action initiatives.**
      - **Horizontal segregation** can be broadly defined as the concentration of men and women in **different kinds of jobs**.
      - **Vertical segregation** denotes the situation whereby **opportunities** for career progression for a particular gender within a company or sector are limited.
- **Related Initiatives of Other Countries:**
  - **Philippines**:
    - Expanded Breastfeeding Promotion Act, 2009.
  - **Mexico:**
    - Introduced reforms to its **Social Security Law allowing men to access childcare services.**
  - **Bosnia and Herzegovina and Bolivia:**
    - They have allowed parents to reduce work hours for Covid-19 family care.
  - **Cape Verde, North Macedonia and Trinidad and Tobago:**
    - They have enabled employees with care responsibilities to perform their work remotely.

Note:

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- **Indian Provisions to Promote Gender Equality:**
  - **Ministry of Women & Child Development:**
    - A separate ministry was established in 2006 to boost employability of Women.
  - **Maternity Benefit (Amendment) Act, 2017:**
    - It allows for pregnant women to take leave for a total of 26 weeks out of which up to 8 weeks can be claimed before delivery.
    - The woman is also supposed to get paid a benefit at the rate of her daily wage for three months before she goes on maternity leave.
  - **Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act 2013:**
    - It has been enacted covering all the women, in spite of their age and employment status, and protects them from sexual harassment at workplaces, in both the public and private sectors of the industry where the women are employed.
  - **Social Security Code,Code on Occupational Safety, Health & Working Conditions Code, and Industrial Relations Code, 2020:**
    - Under the new codes, women have to be permitted to work in every sector at night, but it has to be ensured that provision for their security is made by the employer and consent of women is taken before they work at night.

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Security

Highlights

- *Illegal Influx from Myanmar*
- *Air Independent Propulsion for Diesel Electric Submarines*
- *Defence Acquisition Council's Plans*
- *Suryakiran Aerobatic Team*
- *Exercise Desert Flag-VI: UAE*
- *Exercise Dustlik-2*
- *INS Karanj*

Illegal Influx from Myanmar

Why in News

Recently, the Ministry of Home Affairs (MHA) has directed Nagaland, Manipur, Mizoram and Arunachal Pradesh to check illegal influx from Myanmar into India.

- The instructions have also been given to **Border Guarding Force (BGF), i.e. Assam rifles.**
- India already has a lot of **Rohingya migrated from Myanmar.**
  - India, treats all refugees entering the country as illegal immigrants.
  - In 2020, it was estimated that 40,000 Rohingya refugees lived in India, scattered across different states.

Key Points

- **MHA's Instructions:**
  - The State governments have no powers to grant "refugee status to any foreigner" and India is not a signatory to the **United Nations Refugee Convention of 1951** and its 1967 Protocol.
    - Similar Instructions were Issued in August 2017 and February 2018.
- **Background:**
  - The directive comes weeks after the **military coup** and subsequent crackdown in Myanmar which led to several persons crossing over into India.
  - The Tatmadaw, or Myanmar military, had taken over the country after a coup in February 2021.
  - North Eastern States readily provide shelter to people from across the border as some of the states have cultural ties with some border areas of Myanmar and many people have family relations as well. This had resulted in some states taking a sympathetic view of those fleeing Myanmar and giving them shelter.
  - Already there are clashes among the tribes (**example Bru**), more refugees will further aggravate the situation.
- **Recent Influx:**
  - More than a dozen foreign nationals including policemen and women from Myanmar have fled to neighbouring Mizoram.
- **India Myanmar Border:**
  - India and Myanmar share a 1,643 km border and people on either side have familial ties.
    - Mizoram shares 510-km.
    - Manipur shares 398-km.
    - Arunachal Pradesh shares 520 kms.
    - Nagaland shares 215 kms
  - The border along the four states is unfenced and porous.
- **Free Movement Regime:**
  - A **Free Movement Regime (FMR)** exists between India and Myanmar.
  - Under FMR every member of the hill tribes, who is either a citizen of India or a citizen of Myanmar and who is resident of any area within 16 km on either side of the **Indo-Myanmar** Border (IMB) can cross the border with a border pass (with one-year validity)

Note:

issued by the competent authority and can stay up to two weeks per visit.

United Nations Refugee Convention 1951

- It is a United Nations multilateral treaty that defines who is a refugee, and sets out the rights of individuals who are granted asylum and the responsibilities of nations that grant asylum.
  - It also set out which people do not qualify as refugees, such as war criminals.
- It grants certain rights to people fleeing persecution because of race, religion, nationality, affiliation to a particular social group, or political opinion.
- The Convention also provides for some visa-free travel for holders of travel documents issued under the convention.
- The Convention builds on Article 14 of the **Universal Declaration of Human Rights 1948,** which recognizes the right of persons to seek asylum from persecution in other countries.
- A refugee may enjoy rights and benefits in a state in addition to those provided for in the Convention
- The 1967 Protocol included refugees from all countries as opposed to the 1951 Convention that only included refugees from Europe.
- India is not a member of this convention.

Air Independent Propulsion for Diesel Electric Submarines

Why in News

The **Defence Research and Development Organisation (DRDO)** has conducted the final development test of **Air Independent Propulsion (AIP) System**, crucial for diesel electric submarines.

Key Points

- **Air Independent Propulsion (AIP) System:**
  - Submarines are essentially of two types: **conventional and nuclear**.
  - The **conventional submarines use diesel-electric engines**, which require them to **surface almost daily to get atmospheric oxygen** for fuel combustion.
  - If fitted with an Air Independent Propulsion (AIP) system, the submarine will need to take in oxygen only once a week.
  - The indigenously-developed AIP, which is one of the **key missions of the Naval Materials Research Laboratory (NMRL)**, is considered one of the ambitious projects of the DRDO for the Navy.
    - The project aims at **fitting the technology on** India's Scorpene class submarine **INS Kalvari** around 2023.
- **Advantages of AIP:**
  - The AIP system based submarines will be required to surface much less frequently, thus **increasing their lethality and stealth multifold**.
  - Diesel-electric submarines require them to come to the surface frequently to charge their batteries, thus their underwater endurance time is less.
    - 'Air-independent' propulsion technology helps to **make the diesel generator less dependent on surface air**.
  - While there are different types of AIP systems being pursued internationally, **fuel cell-based AIP of NMRL is unique** as the **hydrogen is generated onboard**.
- **Fuel Cell Based AIP system:**
  - In a **fuel cell** based AIP, an electrolytic fuel cell releases energy by combining hydrogen and oxygen, **with only water as the waste product** ensuring less marine pollution.
  - The cells are highly efficient, and do not have moving parts, thus ensuring that the **submarine has a low acoustic emissions of sound**.

Naval Materials Research Laboratory

- Naval Materials Research Laboratory (NMRL) is **one of the laboratories functioning under DRDO**, pursuing basic research as well as application-oriented technology development in several areas viz. Metallurgy, Polymer, Ceramics, Coating, Corrosion and Electrochemical Protection, Marine Biotechnology, Environmental Sciences.
- It's mission:
  - To develop Air Independent Propulsion (AIP) systems for Naval Submarine & Fuel Cell technologies.
  - To provide scientific solutions for all categories of materials & related technologies for Indian Navy.
  - To undertake research projects on strategic materials for Indian Navy.

Note:

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Nuclear Submarines versus Conventional Submarines

- The main difference between conventional submarines and nuclear submarines is the **power generation system**. Nuclear submarines (e.g **INS Arihant, INS Akula**) employ nuclear reactors for this task and conventional submarines (e.g **Project-75 and Project-75I Class Submarines**) use diesel-electric engines.
- While **nuclear-powered submarines** are considered as key assets for **deep sea operations**, the **conventional diesel electric** ones are vital for **coastal defence and operations close to the shore**.

Defence Acquisition Council's Plans

Why in News

Multi billion deals for **armed drones from the USA** and advanced **submarines under Project-75I** are to be taken by the **Defence Acquisition Council (DAC)**.

Key Points

- **India - USA Drone Deals:**
  - India has been looking to procure 30 armed drones, 10 for each service, from the USA but the process has been repeatedly delayed over the last couple of years.
    - The USA has given in principle approval for the sale of these armed drones to India during the **India-US 2+2 ministerial dialogue**.
  - While the Navy has a pressing requirement for the **High Altitude Long Endurance (HALE) drones**, there have been questions on their utility for the Army and Air Force, given the high cost of the platform.
    - Since the **stand-off with China** in Eastern Ladakh in May 2020, the need for long endurance drones to maintain continuous surveillance of the border has been acutely felt.
  - The Navy has already inducted two **MQ-9B Sea Guardian unarmed drones** procured from the USA.
- **Project-75I:**
  - The Project 75I-class submarine is a follow-on of the **Project 75 Kalvari-class submarine** for the Indian Navy.
  - The project is being processed through the **Strategic Partnership (SP) model** of the **Defence Procurement Procedure (DPP)**.
    - The strategic partnership model seeks to identify a few Indian private companies as Strategic Partners who would initially tie up with a few shortlisted foreign Original Equipment Manufacturers (OEMs) to manufacture big-ticket military platforms.
    - It aims to **promote the role of Indian industry in defence manufacturing** and build a domestic defence industrial ecosystem.
  - This project is part of the **30 year Plan for indigenous submarine construction** and it got its approval by the **Cabinet Committee on Security** in 1999.
    - The idea behind this was to help in streamlining the submarine acquisition process and creating two submarine production lines where the plan was to construct six submarines on each.

Defence Acquisition Council

- The Defence Acquisition Council (DAC) is the **highest decision-making body** in the Defence Ministry for deciding on new policies and capital acquisitions for the three services (Army, Navy and Air Force) and the Indian Coast Guard.
- The **Minister of Defence** is the Chairman of the Council.
- It was formed, after the Group of Ministers recommendations on 'Reforming the National Security System', in 2001, post Kargil War (1999).

Suryakiran Aerobatic Team

Why in News

The **Suryakiran Aerobatic Team (SKAT)** and **Sarang helicopter display team** along with the **Light Combat Aircraft (LCA)** will **perform at an air show at Galle Face in Colombo** from 3rd - 5th March 2021 as part the **70th anniversary celebrations of the Sri Lankan Air Force (SLAF).**

- This will be the first performance for the SKAT team outside India since it was resurrected in 2015 with Hawk Advanced Jet Trainers (AJT). Earlier, the SKAT team toured Sri Lanka during the 50th anniversary of SLAF in 2001.

Note:

Key Points

- **About the Suryakiran Aerobatic Team:**
  - **Establishment:**
    - The team was formed in 1996 with **Kiran Mk-II aircraft** and had enthralled spectators across the country till 2011.
    - It was **revived in 2015** with Hawk trainers initially with four aircraft and grew to the nine aircraft formation.
  - **Features:**
    - The SKAT team, **also known as 52 Squadron or The Sharks**, is based in Bidar (Karnataka).
    - Since its inception, the SKAT team has carried out over 600 displays all around the country, it has also **represented India across southeast Asia including China.**
    - **1971 Commemorations:**
      - Marking the golden jubilee year of the **1971 Liberation War of Bangladesh**, the SKAT team has been flying different formations over landmarks across the country starting from Kanyakumari in the south.
- **Sarang Helicopter Display Team:**
  - The Sarang team has **evolved from the ALH Evaluation Flight (AEF) which was formed in 2003** at Bangalore to evaluate the indigenous helicopter prior to its induction into operational service.
  - The Indian Air Force aerobatic team Sarang (Peacock) comprises **four Indian built Dhruv helicopters (**an Advanced Light Helicopter - ALH, built by Hindustan Aeronautics Limited, Bangalore).
- **Aircraft in India:**
  - **Light Combat Aircraft (LCA) Mk I and MK II,**
  - **Rafale Aircrafts,**
  - **Sukhoi jets**, etc.

Exercise Desert Flag-VI: UAE

Why in News

For the first time, the **Indian Air Force (IAF)** is participating in the **Exercise Desert Flag-VI, hosted by the United Arab Emirates (UAE) Air Force.**

Key Points

- **About:** Ex Desert Flag is an **annual multinational large force employment warfare exercise** hosted by the **UAE Air Force.**
- **Aim:** To provide operational exposure to the participating forces while training them to undertake simulated air combat operations in a controlled environment.
- **Exercise Desert Flag-VI:**
  - **Duration:** IAbout **a three week long exercise** scheduled from 3rd - 27th March 2021 **at Al-Dhafra air base, UAE.**
  - **Participants:** The air forces of the UAE, India, **United States of America**, **France**, **Saudi Arabia**, **South Korea** and **Bahrain**.
  - **India's Participation:** The IAF is participating with six **Su-30 MKI**, two **C-17 Globemasters** and one IL-78 tanker aircraft.
- **Joint Military Exercises with the UAE:**
  - With the UAE, India has **In-UAE BILAT** (bilateral **naval** exercise) as well as **Desert Eagle-II** (bilateral **air force** exercise).
- **Recent Engagements:**
  - India participated in the **NAVDEX 21 (Naval Defence Exhibition) and IDEX 21 (International Defence Exhibition)**.
    - The exhibitions showcase the latest technologies and innovation in the global defence sector, support the growth of UAE's defence industry, and forge new relationships between major international companies.

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- **Examples of Other Multinational Exercises:**
  - **Pitch Black:** Biennial, multilateral air combat training exercise of **Australia**.
  - **Red Flag:** Multilateral air exercise of **USA**.

Exercise Dustlik-2

Why in News

Recently, the second edition of **India-Uzbekistan** joint military exercise **"Dustlik-2"** started in Chaubatia, Uttarakhand.

Key Points

- **Aim of the Exercise:**
  - **Counter Insurgency (CI)** and **Counter Terrorism (CT)** operations in mountainous, rural and urban scenarios under the **United Nations (UN)** mandate.
- **About the First Edition:**
  - Took place in Tashkent, **Uzbekistan in November 2019.**
- **Significance**:
  - Uzbekistan is important to India for security and connectivity to the **Central Asian region** and also Iran, it is also one **alternative India has with respect to Afghanistan.**

Joint Military Exercises of India with Other Countries	
Name of Exercise	**Country**
Garuda Shakti	Indonesia
Ekuverin	Maldives
Hand-in-Hand	China
Bold Kurukshetra	Singapore
Mitra Shakti	Sri Lanka
Nomadic Elephant	Mongolia
Shakti	France
Surya Kiran	Nepal
Yudh Abhyas	USA

  - Security concerns stemming from the **conflict in Afghanistan** is one of the major challenges for India's involvement in Central Asia.

INS Karanj

Why in News

Recently, Indian Navy's third stealth **Scorpene class** (of **Project-75**) Submarine **INS Karanj** has been commissioned at the Naval Dockyard Mumbai.

Key Points

- **About**:
  - The **previous INS Karanj** (a Russian-origin submarine) was **commissioned in 1969**, at Riga in the erstwhile USSR. It had served the nation for **34 years up to 2003.**
  - The **new INS Karanj** would form part of the **Western Naval Command's Submarine fleet.**
  - The ship's name, Karanj, is believed to be derived from the **Karanja island** (also known as Uran Island), a town in Raigad district, which lies in the south-east of Mumbai Harbour.
    - The Indian **Navy has its base at Uran** near Navi Mumbai.
- **Project 75**:
  - It is a programme by the Indian Navy that entails **building six Scorpene Class** attack submarines.
  - It is given support by the **Department of Defence Production (Ministry of Defence)** and **Indian Navy** throughout its various phases of construction.
  - The **Mazagon Dock limited (MDL)** is manufacturing six Scorpene submarines with **technology assistance from Naval Group of France** under a USD 3.75 bn deal signed in October 2005.

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- **Other Submarines of the Ongoing Project-75:**
  - Two submarines, **Kalvari** and **Khanderi**, have been commissioned into the Indian Navy.
  - The fourth Scorpene, **Vela**, has commenced its sea trials.
  - The fifth Scorpene **'Vagir'** was launched in Nov 2020.
  - The sixth and last submarine, **Vagsheer**, is being readied for boot together.
- **Scorpene Class Submarines:**
  - The submarines in the Project-75 Scorpene Class are powered by **diesel-electric propulsion systems.**
  - Scorpene is one of the most **sophisticated submarines**, capable of undertaking **multifarious missions** including anti-surface ship warfare, anti-submarine warfare, intelligence gathering, mine laying, and area surveillance.
  - Scorpene is a conventional powered submarine (diesel-electric) **weighing 1,500 tonnes** and can go up to **depths of 300m.**
  - The **Scorpene class is the Navy's first modern conventional submarine series in almost two decades** since INS Sindhushastra, procured from Russia in July 2000.
  - The Navy is **looking to install Air Independent Propulsion (AIP) modules** on all the Scorpene submarines to enhance endurance.

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Note:

Key Points	Details

Summary

Key Points	Details

Summary